NCR WORLD

September-October, 1970

NCR WORLD

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The National Cash Register Company, Dayton, Ohio 45409

COVER PAGE—This special issue of NCR World touches on some of the stories that link NCR and its employees with the exciting history of powered flight beginning with the Wright Brothers. The story continues today through NCR's various military and space programs, and with the new U. S. Air Force Museum now under construction at Wright-Patterson Air Force Base in Dayton. (Artist Joe Cox made the drawing for the cover.)

A special message

Official groundbreaking for new Air Force Museum. From left: R. S. Oelman, Chairman of the Air Force Museum Foundation; Frank G. Anger, Foundation President; Mrs. Virginia Kettering; General Jack G. Merrell, Commander of the Air Force Logistics Command; and Robert C. Seamans Jr., Secretary of the Air Force.

THOSE OF US who have been in Dayton for some time know of the community's pride in being "The Birthplace of Aviation" and the close ties we have maintained with the civilians and military officers at Wright-Patterson Air Force Base who have contributed so much to aeronautic and astronautic progress over the years.

In the three score and more years since the pioneering work of Dayton's Wilbur and Orville Wright, succeeding generations of Daytonians, including NCR people, have forged important chapters in the history of aviation.

Many of the most colorful stories and the displays surrounding this history have been gathered in the oldest and largest military aviation museum in the world, the Air Force Museum at Wright-Patterson.

During a visit to the Museum one can trace the development of military aviation from that first Wright Flyer delivered to the Army Signal Corps in 1909 to today's performance-packed jets. The Museum attracts visitors from all over the world who come to see this display of progress.

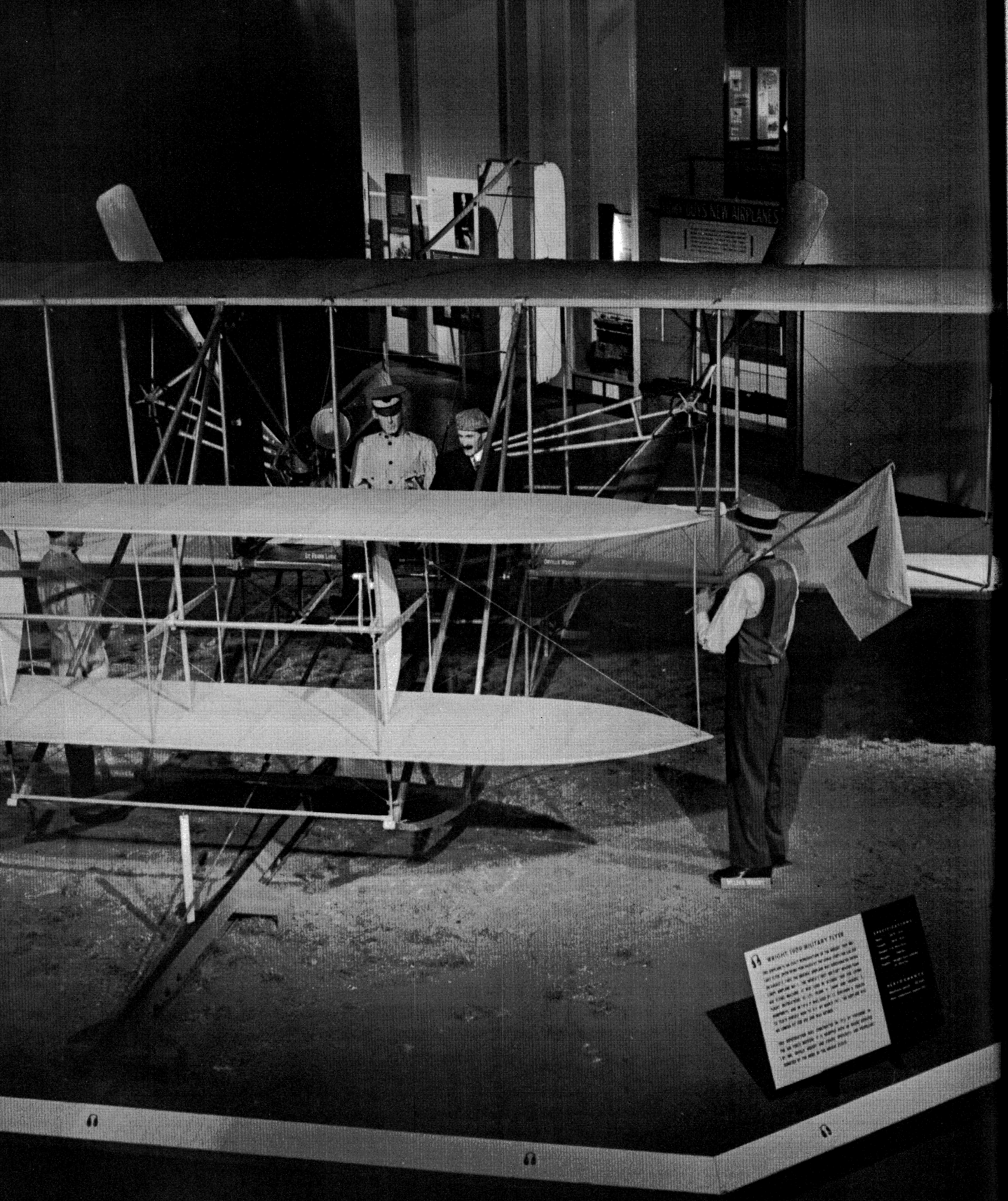
To insure that the Museum has a proper home and the funds with which to acquire additional displays, a number of Daytonians, as well as national figures in aviation, organized the Air Force Museum Foundation to receive, hold and administer gifts for the Museum's benefit.

As the result of the generosity of the Kettering family particularly, as well as others here in Dayton and across the country, and the support of industry as well, the Foundation has gathered sufficient funds to erect a new Museum building specifically designed for portraying aircraft history. This structure was started in April and should be completed next spring.

When it is finished, the new museum will assure the preservation of the great accomplishments of those who have tamed the skies and also serve as a permanent memorial to those who gave their lives in the defense of our nation.

The new Air Force Museum will tell a story not available anywhere else in the world. In this issue, NCR World attempts to bring you a little of that story. After reading it, I hope that you will share in this pride of accomplishment with us.

Robert S. Oelman



World's first military airplane is the Wright-built 1909 Military Flyer.

A treasury of flight

There is something for granddad as well as jet-age youngsters. Kids look with amazement at airplanes that are hardly more than wood, fabric and baling wire.

THE AIR FORCE MUSEUM is people. Just listen . . .

"Gee, dad, you flew *that* airplane.

"Look at this old Wright brothers plane. It flew in air races at Dayton in 1924.

"There's the atomic bomb . . .

"Here's Glenn Miller's trombone, you remember that he was . . .

"A Russian MIG. A North Korean pilot flew it to our side and . . .

"Those World War I recruiting posters are something . . . and that passenger pigeon they named 'John Silver.'

"See the P-38 and those twin tails, and look, the B-70, fantastic! I thought the B-29 was big."

The Air Force Museum, the world's oldest and largest military museum, is a unique, interesting and personally touching experience for almost every visitor.

Emphasis naturally is on military aviation. But, the whole story of flight is told.

Consider that it has been only 67 years since two young men from Dayton, Orville and Wilbur Wright, made the first heavier than air flight. Thus all the more reason for nostalgia.

Many oldtimers recall the era of the Wrights. Then, there are important planes and materials from each major period since. Overall, there are more than 120 airplanes (78 on display) and some 8,000 artifacts. There is something for granddad as well as jet-age youngsters. Kids look with amazement at airplanes that are hardly more than wood, fabric and baling wire.

Operated by the Air Force, the museum is located on the edge of Dayton at Wright-Patterson Air Force Base. Last year it drew over 600,000 visitors and was Ohio's top tourist attraction.

It is fast becoming a major national place of interest too. Attendance is expected to top one million a year upon completion of the new museum facility next year.

The museum is a "must" place to visit for the many hundreds of international and U. S. visitors and guests who come to NCR's world headquarters in Dayton each year.

Visitors frequently comment on the layout of the museum. By simply following the natural walkways it's possible to walk through the pages of aviation history.

"We try to tell our story in chronological sequence from the first thoughts of flight, right up to the present," says Col. Joseph D. Hornsby, Museum Director.

"Every piece of equipment, picture, model or painting is placed with the associated airplane or event in history to make it more understandable."

Air history is stressed. Planes of particular historical importance include the Douglas World Cruiser "New Orleans," one of two Douglas built planes that completed the first aerial circumnavigation of the globe in 1924.

Flying at a top speed of 100 mph the record setting trip of 26,345 miles took 175 days to complete, with 15 days of actual flying time logged. This plane stopped at McCook Field in Dayton in September of 1924 for refueling.

As a parallel to this record, one of the most recent acquisitions is the record setting Boeing B-52 jet bomber, "Lucky Lady III," which flew a similar round the world flight in 1957. The "Lucky Lady III" took 45 hours, 19 minutes for this first jet non-stop circumnavigation.

1. P-40 was piloted to fame in World War II by "Flying Tigers" in Southeast Asia.

2. Impressive lineup of planes.

3. "Fat Man" atomic bomb.

4. Gift shop at Museum entrance.

5. Overall view showing many of the 78 planes displayed.

6. Russian MIG-15 flown to South Korea by defecting North Korean pilot who was given reward of $100,000.

Arrival of the huge B-52 and later the experimental B-70 is typical of the continuing program to display those planes, missiles, or equipment which will mean so much to future generations.

There are several "one of a kind" planes displayed. Example: A Curtis P-6E Hawk, the last one known to exist, is considered by many as the most beautiful airplane ever built.

Training planes, such as the Consolidated PT-1 "Trusty" from the 1925 period, the PT-13D "Kaydet" used in the late 1930s, the Vultee BT-13 "Valiant" and the Fairchild PT-19A of World War II days and the well-known T-6 "Texan" advanced trainer bring back memories to many visitors.

But, the museum is more than a storage place for items of historical interest. One of the objectives is to serve as an educational tool for teaching youngsters about aviation.

Young people get a firsthand look at the changing technology in aviation in the few years since the Wrights' first flight in 1903.

Another important program involves the research and cataloging of materials relevant to military aviation history. This can and does include everything from technical reports on aircraft to copies of the World War I "Stars and Stripes" newspaper. The donations of World War I flyers' diaries or other personal memorabilia is resulting in a collection of information and materials of considerable benefit to a serious aviation researcher.

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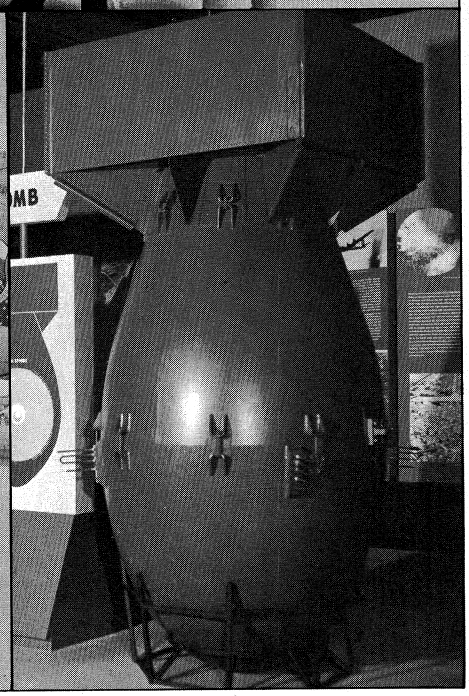

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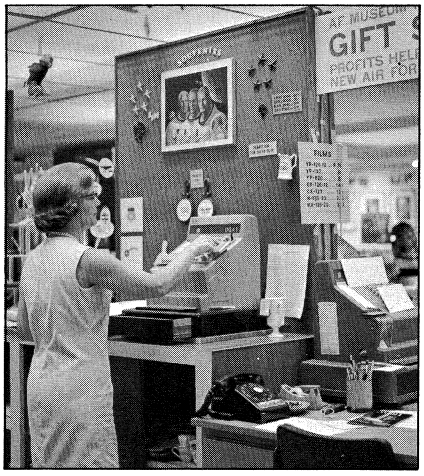

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In addition to items of the past, an attempt is made to provide contemporary displays that will stimulate interest. There is a recent display featuring foods used by U. S. astronauts in space, capsules used in balloon ascensions and a recovered nosecone from an Atlas missile.

The "Little Boy" and "Fat Man" atomic bombs have high appeal. These huge bomb cases, which are of the type dropped at Hiroshima and Nagasaki during World War II, are awesome because of their size.

Selected paintings from the Air Force's art collection, animated exhibits, special dioramas, and large-scale pictures with thoroughly researched and factual "storyline" on wall panels combine to appeal to a variety of interests.

A total of 40 planes are exhibited inside the museum with 38 more outdoors adjacent to the museum building.

The museum's origin dates back to 1923 at Dayton's old McCook Field. It has grown from an informal showing of World War I planes and

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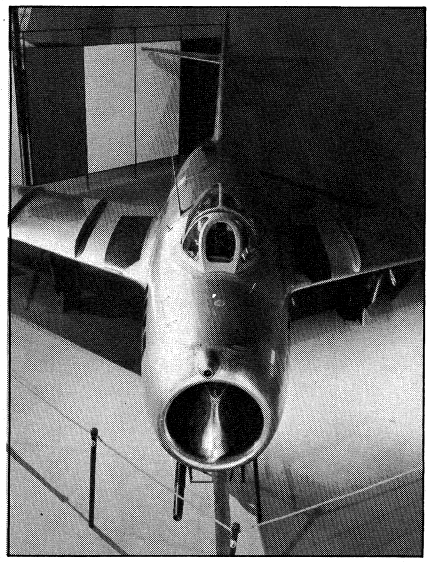

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equipment of both the U. S. and foreign governments at McCook Field hangars to today's ever-expanding collection.

When Wright Field was established in 1927 as a research center replacing McCook Field, the Museum was moved there. Between 1927 and 1935 the Museum occupied space in a laboratory building at Wright Field.

In 1935 the Museum got its first real home in a specially-designed building costing $235,000. It was paid for through a WPA project. But, in 1941 the building was turned over to wartime office uses.

After the war, the Museum program was directed towards collection of items for reopening the museum. Mark Sloan, the long-time curator, had the responsibility of locating items for the technical museum and for the National Air and Space Museum of the Smithsonian Institution.

Collection efforts continued until 1954 when the Museum was opened in the existing facility, a temporary World War II structure. In 1954 it attracted 10,000 visitors.

The Museum is free to the public and is open from 9 a.m. to 5 p.m. weekdays and 10 a.m. to 6 p.m. Saturdays and Sundays. It closes only on Christmas day.

Ceremonies marked the realization of an idea begun 10 years ago with establishment of the Air Force Museum Foundation.

Groundbreaking

"May It Be A Constant Reminder To Our People Of The Patriotic Sacrifice And The High Price Of Freedom"

"TODAY WE GATHER in Your name to break ground for the Air Force Museum," said Chaplain (Col.) Paul Tomasovic in the invocation at groundbreaking ceremonies on a rainy Wednesday afternoon (June 3, 1970) in the Wright Field area at Wright-Patterson Air Force Base.

Nearly 500 persons — four-star generals and World War I aces, interested Dayton citizens and dignitaries — huddled under tents and umbrellas while earth made soggy by the rain was turned for the new $6 million structure.

High Price Of Freedom

"May it be a constant reminder to our people of the patriotic sacrifice and the high price of freedom," Chaplain Tomasovic said.

The ceremony officially signaled the start of construction of the new museum facility, which will be large enough to accommodate any aircraft the Air Force has designed.

Total enclosed space will be over 4.5 acres, of which 3.5 acres will be available for enclosed exhibits.

The five-shovel earth turning marked the realization of an idea begun 10 years ago with the establishment of the Air Force Museum Foundation, which is raising funds for the project. NCR Chairman R. S. Oelman is Foundation Chairman. S. C. Allyn, NCR Chairman retired, was a Foundation trustee and member of the Executive Committee when the Foundation was launched.

Air Force Secretary Robert C. Seamans Jr. said the Museum, "gives the stockholders—the American public—a clear view of the many problems met and mastered by the Air Force."

ue shovels, made from lane parts and bits istoric buildings from air s, used at groundbreaking. n left: Frank G. Anger; eral Jack G. Merrell; . Oelman; and General William IcKee (retired), formerly nander of the Air eriel Command.

Kettering's Dream

General Jack G. Merrell, Commander of Air Force Logistics Command, said the new museum will house the relics showing the history and heritage of the Air Force, serve as a monument to early Dayton aviators who started the Museum at old McCook Field back in 1923, and realize a dream of the late Eugene W. Kettering, first chairman of the Foundation and a principal benefactor.

Mr. Oelman said, "We who are civilians, visit the Air Force Museum to relive some of the bright chapters of military aviation history and to marvel at the increasing complexity of aircraft.

"Others, professionals and scientists of the Air Force, come to study and to build upon the principles first enunciated by those helmeted and goggled pioneers who literally flew by the seat of their pants. And what a far cry today's modern, well-equipped and scientifically based Air Force is from those early days of baling wire, glue, fabric and prayers.

A Place To Learn

"The museum is a valuable learning tool, playing host as it does to thousands of school children, college students and adults from all parts of the nation, and yes, the world, each week.

"It is also a source from which to build pride in our nation, a tangible tribute to those who gave so much to their country over the years.

"As Gene Kettering once wrote:

" 'One of man's most noble emotions is patriotism—a deeply sincere and reverent love for his country. Unfortunately, patriotism is not innate, but must be taught to and learned by the individual.

" 'No greater example of selfless courage, achievement, and sacrifice can be found than that which permeates the sixty-year chronicle of those patriots who have so greatly served our nation in the skies overhead.' "

AMONG THE distinguished guests on hand for the historic groundbreaking ceremonies were:

Frank G. Anger, Foundation President, who is Chairman of The Winters National Bank and Trust Co.; Major Reed Chambers, World War I ace; Major General Lee Gossick, Commander Aeronautical Systems Division; Major General Henry L. Hogan III, Air Force Chief Information Officer; Colonel Joseph Hornsby, Commander Air Force Museum; Colonel Joe Jackson, most recent Air Force Congressional Medal of Honor winner; Mrs. Virginia Kettering, wife of the late Eugene W. Kettering, first board chairman of the Air Force Museum Foundation; John Lang Jr., Administrative Assistant to the Secretary of the Air Force.

General John P. McConnell, Executive Director of the Air Force Museum Foundation and immediate past Air Force Chief of Staff; General William F. McKee, formerly commander of Air Materiel Command; Dr. Thomas McKnew, Chairman Emeritus of the National Geographic Society; General Jack G. Merrell, Commander of the Air Force Logistics Command; Robert S. Oelman, Foundation Chairman, and Chairman of NCR; Captain Eddie Rickenbacker, World War I ace and first Air Force Congressional Medal of Honor winner; Honorable Robert C. Seamans Jr., Secretary of the Air Force; Major Alexander de Seversky, aircraft pioneer, racing pilot, author, aeronautical engineer; General Jacob Smart, former Vice Chief of Staff of the Air Force; General Carl Spaatz, first Chief of Staff of the Air Force; and Brig. General Coleman O. Williams Jr., Commander of Wright-Patterson Air Force Base.

FIVE UNUSUAL SHOVELS made of airplane parts and bits of historic old buildings from air bases, were used to mark the official start of construction of the new Air Force Museum.

The shovels were made at Logistics Command's five field installations.

The shovel used by Mr. Seamans is made of wood and metal taken from one of the original buildings at Warner-Robins Air Force Base in Georgia. General Merrell's shovel is made from parts from the second B-52 accepted by the Air Force and afterburner flaps from an F-4 Phantom jet engine. It was made at

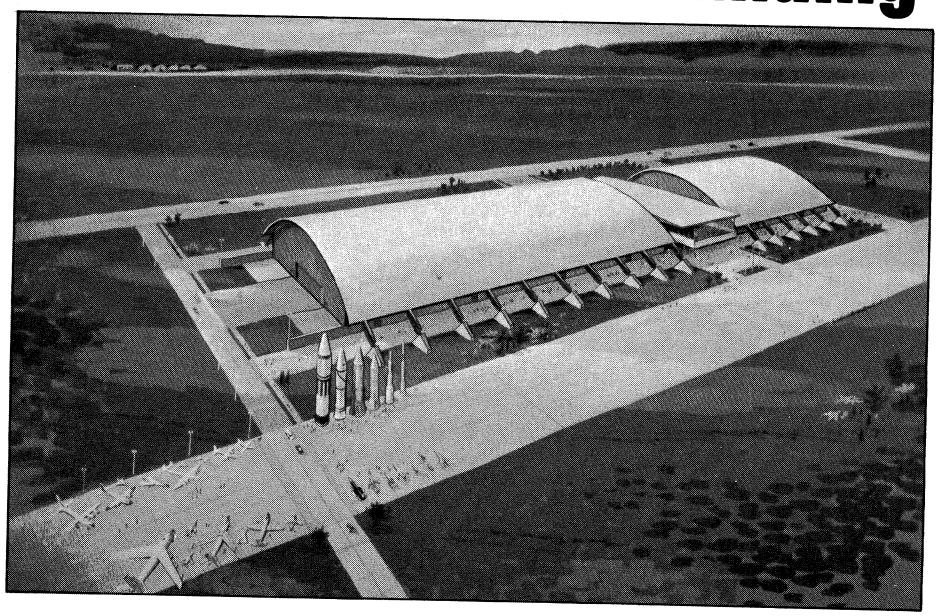
Tinker Air Force Base, Oklahoma.

Mrs. Kettering used a shovel manufactured of reinforced fiberglas from Hill Air Force Base in Utah, symbolizing the gap between the Jennies of yesteryear and the exotic aircraft of the future. It was cast in a single piece.

Mr. Anger's shovel contains wood from one of the original World War I hangars at Kelly Air Force Base, Texas, and works with bell cranks and control rods from an F-106 jet.

A shovel made at McClellan Air Force Base, Calif., from a special test propeller used to evaluate engines on pre-World War II B-17s and B-24s, was used by Mr. Oelman.

The New Museum Building



MAXIMUM functional display space; flexibility for future expansion; design simplicity for low cost; and an architecturally pleasing effect.

These are the key concepts underlying the new Air Force Museum building which is expected to be ready for occupancy in the summer of 1971.

The new structure, 300 feet wide and 800 feet end-to-end, will have an arched roof soaring 80 feet above the ground.

Overall, it provides enclosed display space for up to 100 aircraft, more than double the number in the existing museum building.

The building design provides two large exhibit areas without structural columns, providing uninterrupted, clear-span floor space for maximum flexibility and ease of movement of planes and exhibits.

A two-story glass enclosed core area between the two exhibit areas will provide administrative space, a theater seating 500, and a restaurant seating 200 with adjacent kitchen as well as a technical research library.

The dining area and gallery spaces located on the second floor will provide a dramatic overlook of the interior displays as well as the outdoor displays grouped around the building.

The entire structure will have year-round air conditioning to provide visitor comfort and to help preserve older fabric and wooden aircraft.

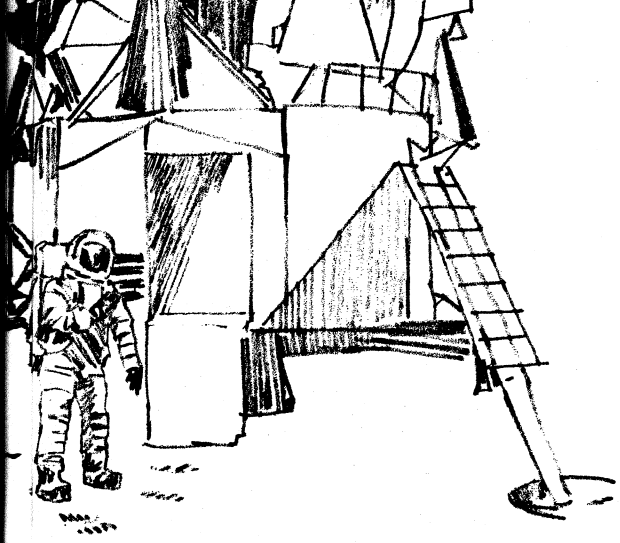
"The modular construction techniques developed in recent years make it possible to erect an attractive facility that the nation, the Air Force and the Dayton community can be proud of," Foundation Chairman R. S. Oelman said.

The Foundation initiated a fund-raising campaign for this purpose in 1964, receiving major contributions from Eugene W. Kettering, members of his family, local and national business and industry, foundations and private citizens.

An in-service campaign among enlisted and officer personnel, and civilian employees of the U. S. Air Force world-wide was launched in July in support of the building fund.

The facility, being built by the Pascoe Steel Corporation of Pomona, Calif., and Columbus, Ga., will be turned over by the Foundation to the Air Force for operation.

1903
20th
ANNIVERSARY
Wright Bros
FIRST FLIGHT
1923



A Close Tie

HISTORY REVEALS some interesting and unique ties between aviation and NCR.

Dayton, Ohio, is the birthplace of the cash register and is world headquarters for NCR.

Dayton also is the birthplace of aviation. It is also the home of air research and developments that have made the United States Air Force internationally famous.

The story goes back almost to the turn of the century. In December, 1903, Daytonians Wilbur and Orville Wright made their first flight at Kitty Hawk, North Carolina, an event that introduced the Age of Flight.

On Huffman Prairie

NCR Chairman E. A. Deeds was one of the first to see the significance of aviation. His interest was largely influenced by his friendship with the Wrights. He was a frequent visitor at their small, almost primitive flying field on Huffman prairie, near the site of today's giant Wright-Patterson Air Force Base on Dayton's northeast edge.

As early as 1909 when both Deeds and Charles F. Kettering, who was to become world-famous for his inventions, were employed at NCR, Deeds suggested to the Wrights that they might be interested in a special ignition system that had been developed by Kettering.

The Wrights turned down this suggestion, but a lasting friendship resulted. Deeds realized early that aviation was the passion of their lives and he caught the spark too.

Deeds was civic-minded as well as air-minded and he cherished the idea of making Dayton the scientific center of the country with special emphasis on aviation.

Aviation Adventure

In 1916 he established one of the first private landing fields in the United States on South Field, which was adjacent to what is now NCR's Moraine Farm in Kettering. The installation became an experimental field destined to be the scene of notable aviation adventure.

Deeds placed his field at the disposal of the Dayton Wright Airplane Company, which used it for experimental work during World War I.

It was here that Orville Wright developed his split-flap which made dive bombing possible, and it was here that Kettering perfected his World War I buzz bomb or "bug." The radio telephone which enabled planes to communicate with each other was born in the Deeds hangar too.

Deeds and Kettering, with the approval of Orville Wright, purchased the tract of land then on the outskirts of Dayton which is now part of a city park area. This 120-acre tract, later named McCook Field, was for public aviation use.

The Fighting McCooks

McCook Field, named after Ohio's General Anson McCook of the fighting McCooks of Civil War fame, was the first airfield to be opened virtually within the limits of a city. And, it was the earliest military aviation center for research and experimentation.

As Deeds' interest in aviation grew he helped organize the Dayton Wright Airplane Company. Deeds had no financial interest in this company, but moved it into being along with H. E. Talbott, H. E. Talbott Jr., who later became Secretary of the U.S. Air Force, Kettering and Orville Wright.

In addition to production of military planes during World War I, Dayton Wright stressed research, experimentation and attempted to help popularize the airplane.

Deeds made great contributions during World War I. He served on the Aircraft Production Board and later became a full colonel in the U.S. Army heading the Signal Corps' Equipment Division.

The Signal Corps included what was then a practically non-existent air corps. Col. Deeds helped build this to 150,000 men and 13,894 airplanes by time of the armistice. He

also played a leading role in the design and production of the famous Liberty engine. Later these engines did much to carry forward post-war civilian aviation.

In his book, "Colonel Deeds Industrial Builder," Isaac F. Marcosson said:

Records Are Set

"The power and purpose of the Liberty engine continued long after the great guns of war had been silenced. A Liberty-engined DeHaviland 4, piloted by Captain E. F. White, made the first non-stop flight from Chicago to New York in six hours and 50 minutes in April, 1919. In the same month and in the same type of plane, also Liberty-engine driven, Captain Theodore C. McCauley flew from Tucson, Arizona, to Stillwater, Texas, in a little over eight hours, covering 880 miles in what was then the world's non-stop record flight. Another DeHaviland 4, with a Liberty engine, with Lt. Maynard at the stick, won the transcontinental race from New York to San Francisco and return.

"The supreme achievement up to that time was the first aerial crossing of the Atlantic in May, 1919, by Commander Read, U.S.N., in the Navy flying boat NC4 equipped with four Liberty engines.

"Five years later the first round-the-world flight was made possible by planes powered by 12-cylinder Liberty engines. These planes, called the 'Magellans of the Air,' covered 26,345 miles in 363 hours of actual flying time. It was an unprecedented achievement."

NCR took a leading part in the development of the beautiful Wright Memorial, which is located near Wright-Patterson and commands a view of the base and the site of the area where the Wrights first tested and flew their planes.

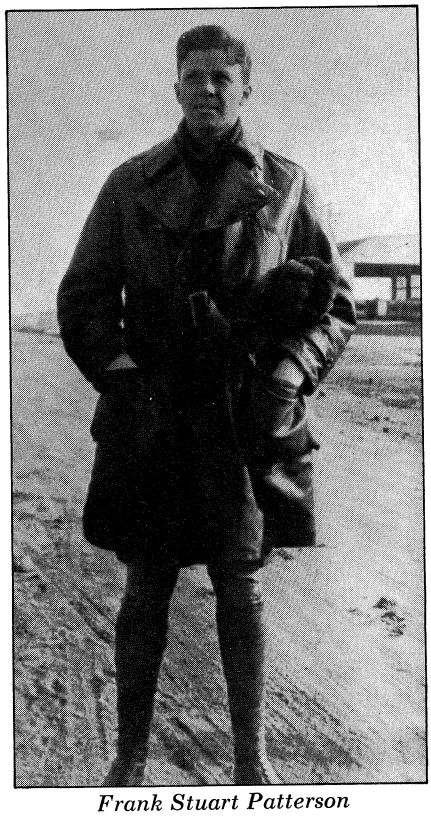
Marble From Kitty Hawk

Col. Deeds was chairman of the Wright Memorial Commission and other NCR officials and employees gave their time to the project.

This memorial, the shaft and base of which is of selected North Carolina marble, chosen from the vicinity of Kitty Hawk, attracts thousands of visitors each year. Many view it while in the area to visit the Air Force Museum.

The Wright Memorial was dedicated August 19, 1940, Orville Wright's birthday, in the presence of a distinguished group including General H. H. (Hap) Arnold, Captain Kenneth Whiting, U.S.N., former Ohio Governor James M. Cox, Lt. General William Knudsen, and Charles F. Kettering.

Orville was a frequent visitor at



Frank Stuart Patterson

NCR before he died in January, 1948. He suffered a heart attack and collapsed on the front steps of NCR's headquarters building in October, 1947, then suffered a second attack while in his workshop in January. One of the persons at his bedside was his long-time friend, Col. Deeds.

There are still other ties between NCR and the world of aviation.

The Patterson Name

Wright-Patterson Air Force Base gets its name from the Wright brothers and from Frank Stuart Patterson, who was the son of Frank J. Patterson, co-founder of NCR along with his brother, John H. Patterson.

Frank Stuart Patterson was killed shortly before the end of World War I when his plane crashed on what now is the site of Patterson Field at Wright-Patterson. First Lt. Patterson and Second Lt. LeRoy Swan, both of the 137th Aero Squadron, were killed in the crash of their DeHaviland-4 after its wings collapsed during a dive while firing at ground targets with a new synchronized-through-the-propeller machine gun.

The Air Force complex which was later to bear Lt. Patterson's name as a memorial was originally Wilbur Wright Field. After expansion and various name changes a second landing field became Patterson Field in honor of Lt. Patterson on July 6, 1931. Then in January, 1948, the name Wright-Patterson Air Force Base was made official.

Frederick Patterson, son of John H. Patterson, and who became NCR President in 1921, also played a key role. Like his cousin, he too was a pilot, but a bad knee kept him from becoming a pilot in World War I. However, after joining the Army he earned his commission in the aerial photography service.

National Air Races

After the war he continued his interest in aviation and as president of the National Aero Society, was responsible for bringing the national air races to Dayton in 1924.

His father, John H. Patterson, also was an enthusiastic backer of aviation. He led a long, though unsuccessful fight, to convince the United States to adopt General Billy Mitchell's proposal that aviation, which had proved itself during the war, be made a separate military force directly responsible to a civilian cabinet officer.

On May 5, 1922, underscoring his interest in aviation, Mr. Patterson arranged a gala reception for Gen-

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1. President Roosevelt, Orville Wright, Ohio Governor James M. Cox enroute to Hawthorn Hill.

2. NCR took leading part in development of Wright Memorial, which overlooks WPAFB and site where Wrights flew and tested their planes.

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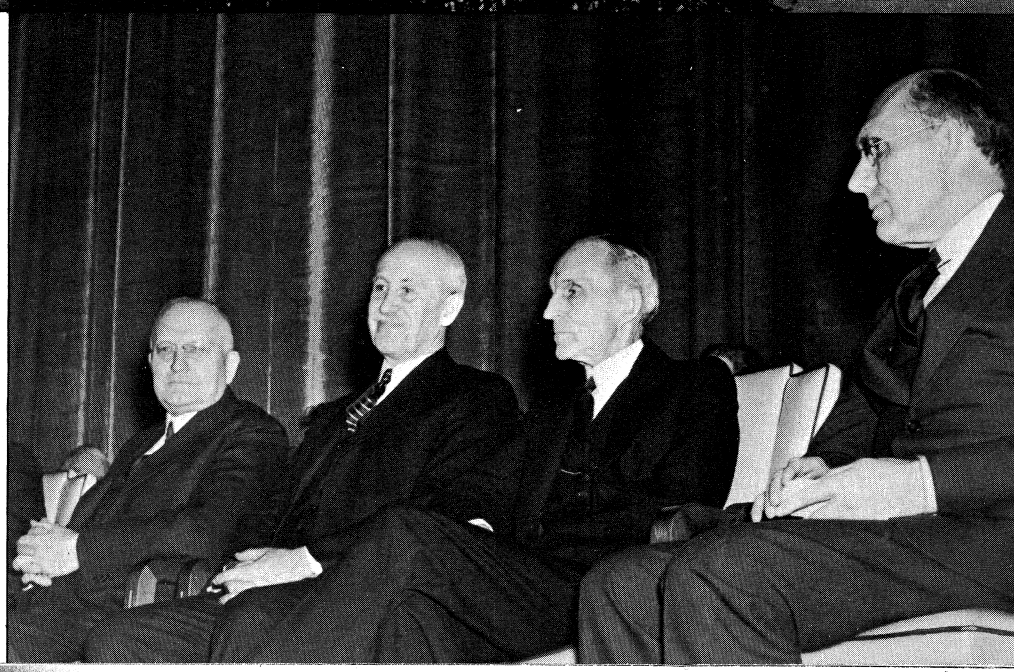
3. Wrights' home, Hawthorn Hill, purchased by NCR while S. C. Allyn, former NCR Chairman, was Company President.

4. Historic occasion. Among those on hand for 35th anniversary of flight, Dec. 17, 1938, from left: Col. Deeds, Orville Wright, Henry Ford and Charles F. Kettering.



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General Billy Mitchell

eral Mitchell, at which a campaign was activated to keep McCook Field in Dayton open as a military air base.

After JHP's death, Frederick Patterson carried on the fight to retain the air base in Dayton.

On a return visit to Dayton in 1959, Frederick Patterson said: "My biggest contribution to Dayton is Wright Field. With the aid of General Billy Mitchell, I helped get that here."

That was when Mr. Patterson led a 36-hour campaign to raise $400,000 for purchase of Wright aviation field and land adjoining it.

Tip From Gen. Mitchell

Mr. Patterson said that General Mitchell tipped him that the government planned to move former McCook Field to the Maryland coast.

Then he related, he made a quick trip to Washington, "to see President Coolidge."

"Coolidge," he recalled, "suggested that if Dayton were able to give the government sufficient land, he would see to it that the air installation would remain in Dayton."

Mr. Patterson said that it was a few nights after the Washington discussion—at an NCR dinner—when, "Fred Rike, Kettering, myself and other businessmen, raised the money for the land purchase in practically one hour."

Mr. Patterson was referring to Frederick H. Rike, founder of the Rike-Kumler Co., and Charles F. Kettering.

The tie between the Wright brothers and NCR continues today. It was while S. C. Allyn, former NCR Chairman, was Company president, that the Wrights' home, Hawthorn Hill, was purchased by NCR. Now it is used for visitors and guests from overseas. The library has been preserved with the original furnishings just as it was at the time of Orville's death. (Wilbur Wright contracted typhoid fever and died May 30, 1912, before construction of the house began. However, he helped plan it along with Orville and their sister, Katherine.)

It was during World War I, Mr. Allyn recalls in his book, "My Half Century With NCR," that the Company produced airplane parts and the Colt automatic pistol.

Five "E" Awards

In World War II, NCR carried on a number of major projects in the war effort and received five Army-Navy "E" awards.

During this period, NCR produced MK4 rocket motors, was the sole production source for the 58 Chandler-Evans aircraft carburetor, which was used on the B-29 long-range bomber that ultimately carried the first nuclear bombs, and turned out K-3 and K-4 analogue computer gunsights, used in bomber defense systems.

In addition, the Company produced more than two million M-42 antiaircraft time fuses, and made a million and a quarter magazines for the Oerlikon gun, a Swiss model that the Navy adapted for shipboard antiaircraft use. In addition, the Company manufactured about 10 million spare parts for carbine rifles.

During the Korean War, NCR entered the bombing-navigational computer field as a prime contractor for the manufacture of the A1A subsystem designed by Sperry Gyroscope Company.

This electro-mechanical analogue computer embodied 26 separate units and 75,000 parts. It performed necessary computations for both navigation and bombing in the B-36 and B-47 aircraft.

Air Force Payroll

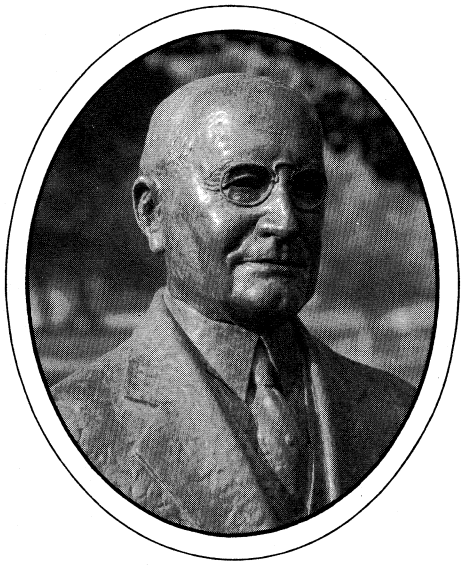
In the late 1950s, after the introduction of NCR's 304 computer, the first of which was delivered to the Marine Corps, NCR introduced the smaller 390 computer. The U.S. Air Force installed more than 160 of them for military payroll preparation throughout the world.

Mr. Allyn was an early participant in the Air Force Museum Foundation program serving as an original trustee and Chairman of the Foundation's Executive Committee. The committee obtained formal endorsement for the Foundation program from Secretary of the Air Force Eugene Zuckert and Air Force Chief of Staff General Curtis E. LeMay.

And, today NCR Chairman R. S. Oelman, who worked closely with Col. Deeds and Mr. Allyn on the Air Force-NCR projects, continues to carry forward this tradition. Mr. Oelman is Chairman of the Air Force Museum Foundation and is guiding the Foundation's expanding program, which includes a new Air Force Museum building, slated to open in 1971.

The NCR Military Division and Electronic Communications, Inc. (ECI), an NCR subsidiary located in St. Petersburg, Fla., are actively engaged in a variety of projects today for the Department of Defense, and the National Aeronautics and Space Administration.

Dayton's old McCook Field was earliest military aviation center for research and experimentation.



Col. E. A. Deeds

The Wright Flyer

"A carpenter called me and asked if they could cut off the wings in sections to make it easier to haul. I said, 'You do and I'll break your neck.'"

THE 1905 Wright Flyer on display in Carillon Park, holds a distinctive place in aviation history.

This is the airplane in which the Wright brothers themselves always said they really learned to fly.

Some aviation authorities consider it to be an even more valuable relic than the Wright's first powered aircraft.

The Wrights made their historic first flight at Kitty Hawk, North Carolina, on Dec. 17, 1903. Upon their return to Dayton, they immediately began work on a second plane. They felt sure it would fly much farther than the original plane—the Kitty Hawk, which now is in the Smithsonian Institution.

Similar To Kitty Hawk

Work on the 1905 Wright Flyer began in January, 1904.

It is similar to the Kitty Hawk, but a number of changes were made to make it stronger. And, it was equipped with an entirely new engine.

In 1904 the Wrights made more than 100 flights on Huffman Prairie east of Dayton on the present site of Wright-Patterson Air Force Base.

It was during these flights that the Dayton brothers, Orville and Wilbur, learned how to fly. Among their accomplishments was flying in a complete circle on September 20, 1904, and then two flights of three miles each.

In May of 1905 the Wrights made additional changes to make the plane stronger and safer. In a report to the Aero Club of America, dated March 12, 1906, they said:

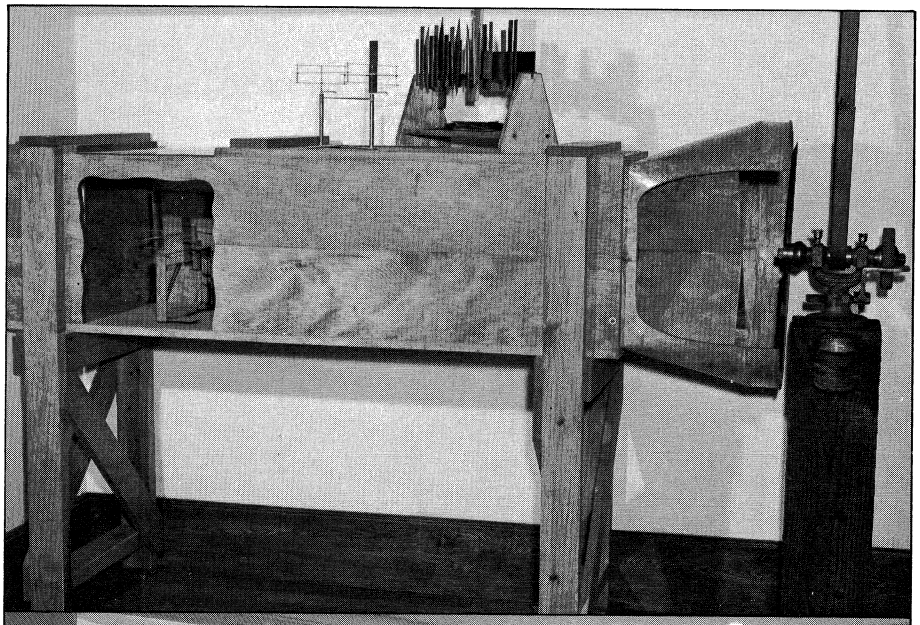
"The 1905 Flyer had a total weight of about 925 pounds, including the operator, and was of such substantial construction as to be able to make landings at high speed without being strained or broken. From the beginning the prime object was to devise a machine of practical utility, rather than a useless and extravagant toy."

Carried Two Men

Later the plane was taken to Kitty Hawk and on May 14, 1908, before a group of newspaper reporters, made a history-making flight carrying two men.

The 1905 Wright Flyer eventually was preserved for posterity through the efforts of former NCR Chairman Col. E. A. Deeds who founded and developed the park and the nearby Deeds Carillon. (Both the park and Carillon are within sight of NCR's world headquarters in Dayton.)

The late Carl Beust, former head of the NCR Patent Department, who worked closely with Col. Deeds and others in acquiring many of the park's historic exhibits, said of the 1905 Flyer:



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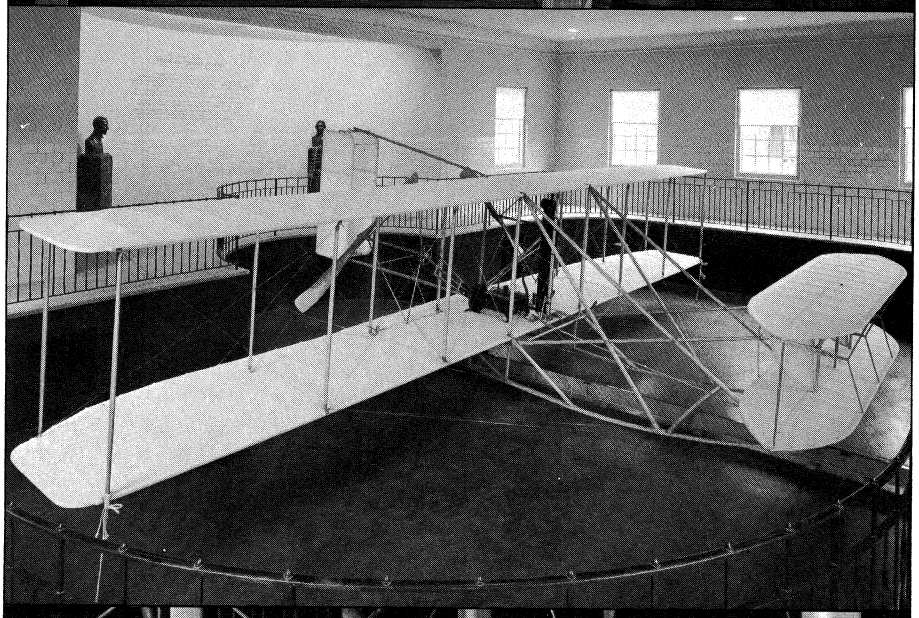

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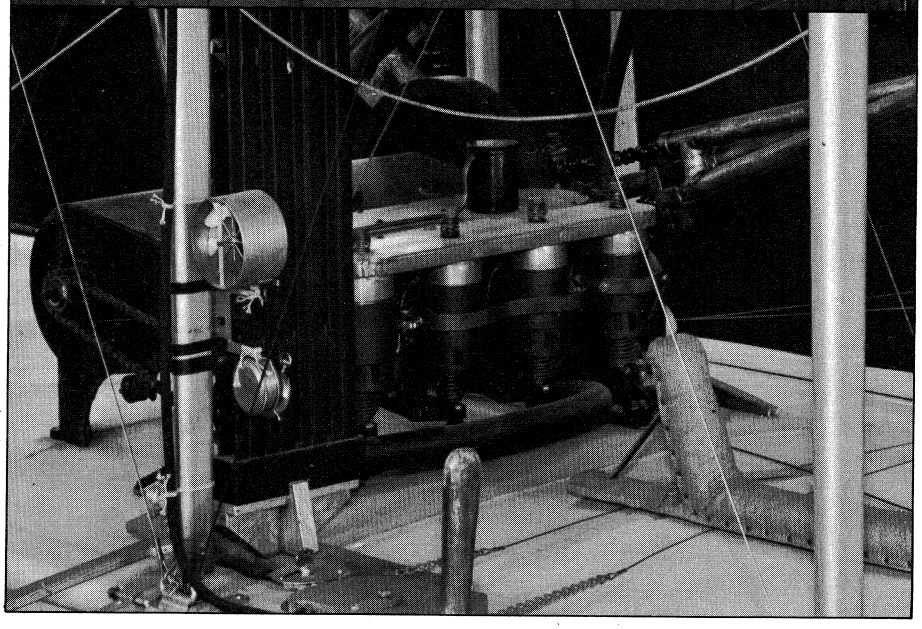

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1. Wrights made own wind tunnel and balances.

2. 1905 Wright Flyer in Carillon Park's Wright Hall.

3. Four-cylinder engine was designed and built by Wrights.

"Orville Wright worked very closely with us on this project. Originally, we started out to create a replica of the first plane that flew at Kitty Hawk.

"The Wright brothers made no drawings of this plane—so we were having them drawn. We were getting some of the dimensions from England where the plane was on display at that time.

"Then Orville told Col. Deeds that he felt the 1905 plane could be reassembled as most of the original parts were in existence.

Parts Were Scattered

"That's what we decided to do.

"Some of the parts from this plane had been stored in an old barn or garage in Kitty Hawk. The wings and main body parts were stored in a museum and library in Pittsfield, Mass.

"Orville said that a group of boys

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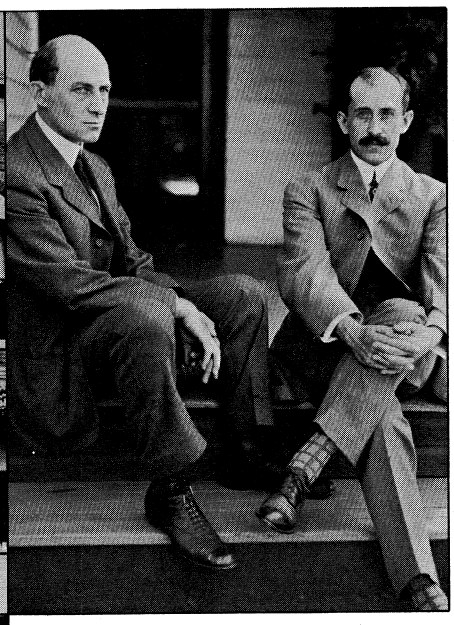

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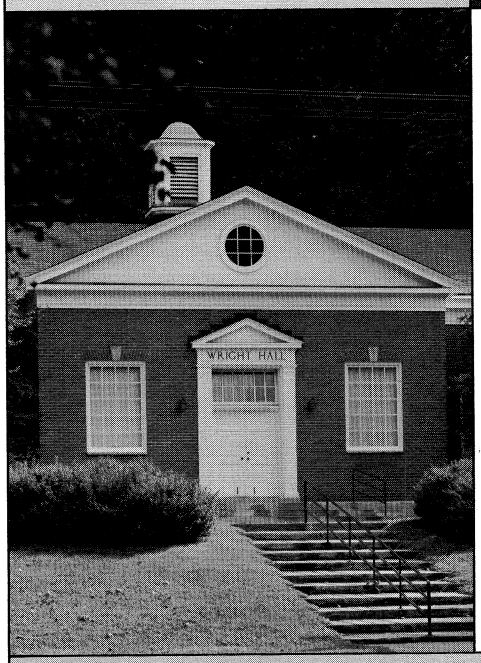

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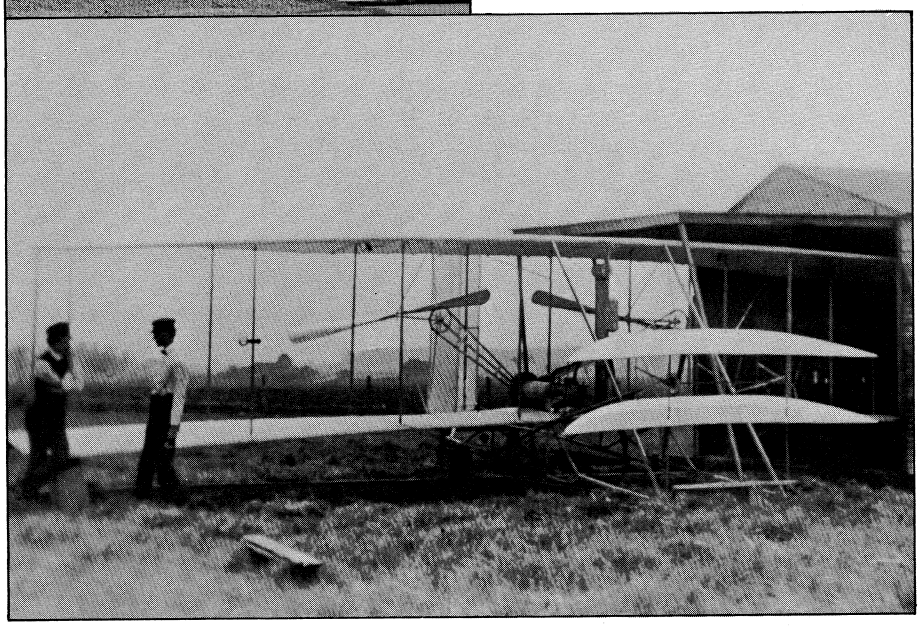

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1. Wright cycle shop where first planes were built. (Replica of shop is being built in Carillon Park.)

2. Vintage picture of Daytonians Wilbur and Orville Wright.

3. Special building in park houses 1905 Flyer, other material on Wrights.

4. 1905 Wright Flyer on Huffman Prairie near Dayton.

who hung around the area when he and Wilbur were making the flights apparently had broken into the barn and taken some of the parts of the 1905 plane to keep as souvenirs. Well, I found that tracing these boys was an interesting project.

"One had become a banker, another a minister. They were scattered all over the U. S.

"I found the banker's wife in Elizabeth, N. J., and she said the minister lived there also. The minister admitted that he was one of the boys who took souvenirs and that as a way of making it up he would help round up the parts of the plane from all the boys. He did.

"Later Orville sent each a note of thanks with a piece of wood and canvas from the first plane that flew at Kitty Hawk.

Assembled At NCR

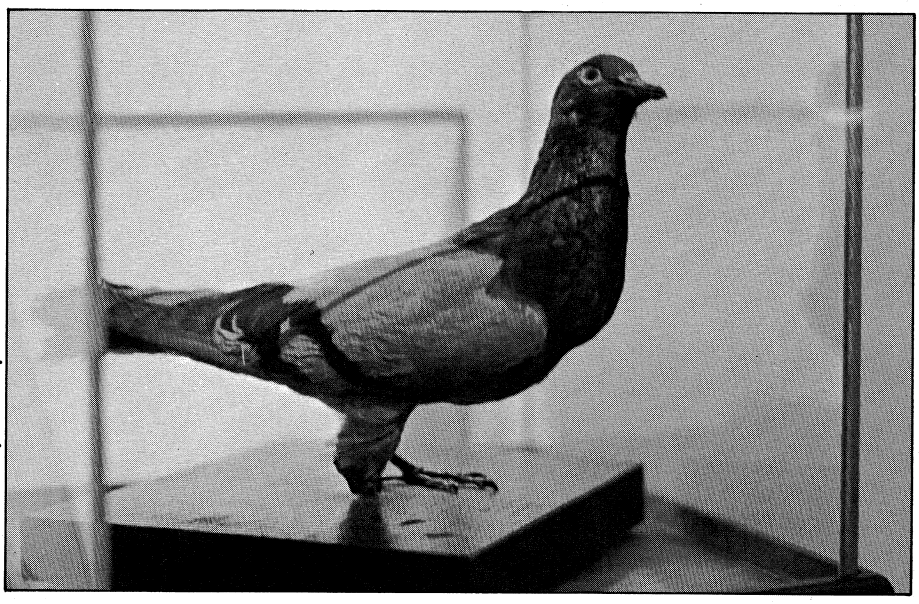
"The 1905 plane then was reassembled at NCR in a small wooden building called 'the annex'. It was attached to the building that is now Domestic Marketing's headquarters. This 'annex' also was used during World War II for top secret defense contract work.

"A truck and crew from NCR went to Pittsfield, Mass., to get the plane's body parts and wings. A carpenter called me and asked if they could cut off the wings in sections to make it easier to haul.

"I said, 'You do and I'll break your neck'. The wings were not cut, although one wing was damaged and had to be replaced. Original sketches and other items of interest we turned up are in Wright Hall at Carillon Park too."

At least 60 per cent of the parts in the reconstructed 1905 plane are original. These include the engine, the chain guides, control levers and pilot's cradle, the propellers, the greater part of the wing structure as well as front rudder struts. Construction of the plane, in addition to Orville Wright, was supervised by Harvey D. Geyer, an early employee of the Wrights.

STUMPY JOHN SILVER



ON EACH ORGANIZATION DAY of the 11th Signal Company, the name John Silver is added to the roll call.

When the name is called the senior noncommissioned officer answers, "Died of wounds received in battle in the service of his country."

Like other flyers in France during 1918, John Silver was a bit cocky, but he wore his plumage well. John Silver was a homing pigeon hatched in the trenches during January 1918.

Barrage Dodging

By the time he was a few months old he was a veteran of many message-carrying missions over the front lines and his ability at barrage dodging became legendary.

On Oct. 21, 1918, at 2:35 p.m., John was sent up from a dugout at Grand Pre. The Meuse-Argonne offensive was just starting and an important message had to be delivered at Rampont, 25 miles away. The Germans, meanwhile, were laying down a furious bombardment prior to the attack.

Upon being released, John circled for a moment, then headed for Rampont. Doughboys watched anxiously as he headed through the devastating gunfire. And then, their eyes glued to the sky, the men saw what appeared to be almost certain death for the pigeon when a shell exploded near him.

Concussion hurled John Silver upward and shrapnel tore into his tiny body. For a sickening moment, he lunged toward the ground, then recovered and continued his flight. Some 25 minutes later, averaging a mile a minute, John Silver reached his destination.

Right Leg Missing

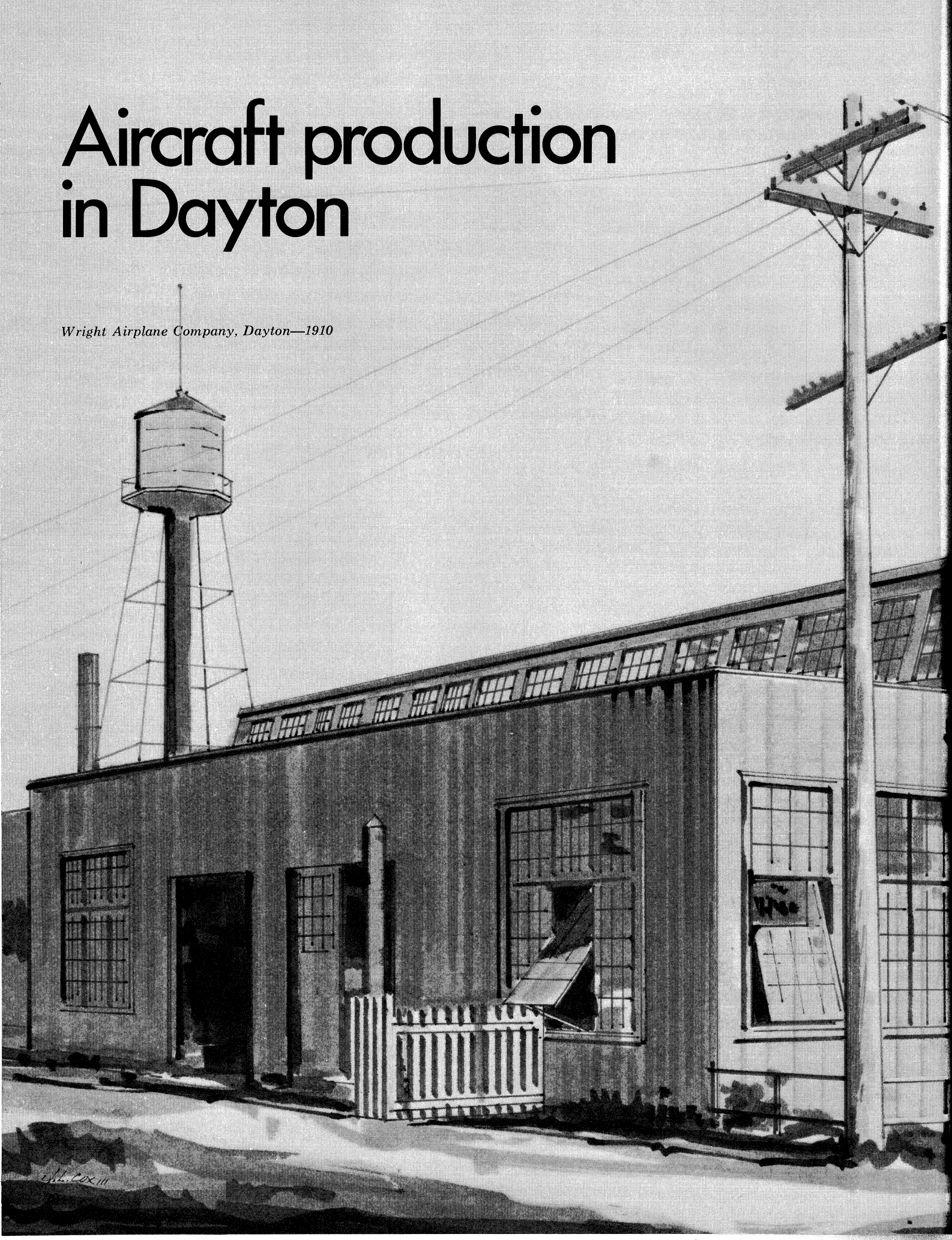
He was a horrible sight. A machine gun bullet had pierced his breast, bits of shrapnel had torn his body, and his right leg was missing. But he delivered the message. The message tube was intact but hanging by the ligaments of his torn leg.

John Silver was a hero. Men affectionately dubbed him Stumpy John Silver after the celebrated pirate of Robert Louis Stevenson's "Treasure Island." Weeks of care restored him to health, but he could not return to battle.

Stumpy John was discharged from the service in 1921 and assigned to the 11th Signal Company, U. S. Signal Corps, Schofield Barracks, Honolulu, so he could spend his remaining life in the mild climate of Hawaii. There he died on Dec. 6, 1935, at the age of 17 years, 11 months.

Stumpy John Silver's mounted body is on permanent display at the Air Force Museum as a symbol of the heroic and faithful service of pigeons to combat forces during the first World War.

Aircraft production in Dayton



Wright Airplane Company, Dayton—1910

IN THE early days of aviation, Dayton, Ohio, had a flourishing aircraft production industry.

And, NCR and its employees played a significant role in this exciting new adventure.

It was because of men like the Wrights, Col. Deeds, Kettering and hundreds of others who pioneered in Dayton, that the United States emerged as a leader in aeronautics.

Other parts of the nation drew heavily on talent developed at the Wright Airplane Company, the Dayton-Wright Airplane Company, McCook Field, and continuing today at Wright-Patterson Air Force Base.

Wright Airplane Company

In November, 1909, just six years after their first flight at Kitty Hawk, the Wright brothers sold their United States patents to a group of New York investors headed by banker August Belmont for $100,000. Then they organized a factory for the new owners.

The agreement was for the Wrights to receive 40 per cent of the airplane company stock and a 10 per cent royalty guarantee on every machine sold.

Following Belmont's lead, these investors put money into the company: Cornelius Vanderbilt, Morton F. Plant and Howard Gould—railroad magnates; Theodore P. Shonts and Allan Ryan—municipal transportation; Edward J. Berwind—coal mining; Andrew Freedman and Pliny W. Williamson—stock market operators; Russell A. Alger, Packard Motor Car executive, and Robert J. Collier, magazine publisher. Mr. Alger and Mr. Collier were friends of the Wrights.

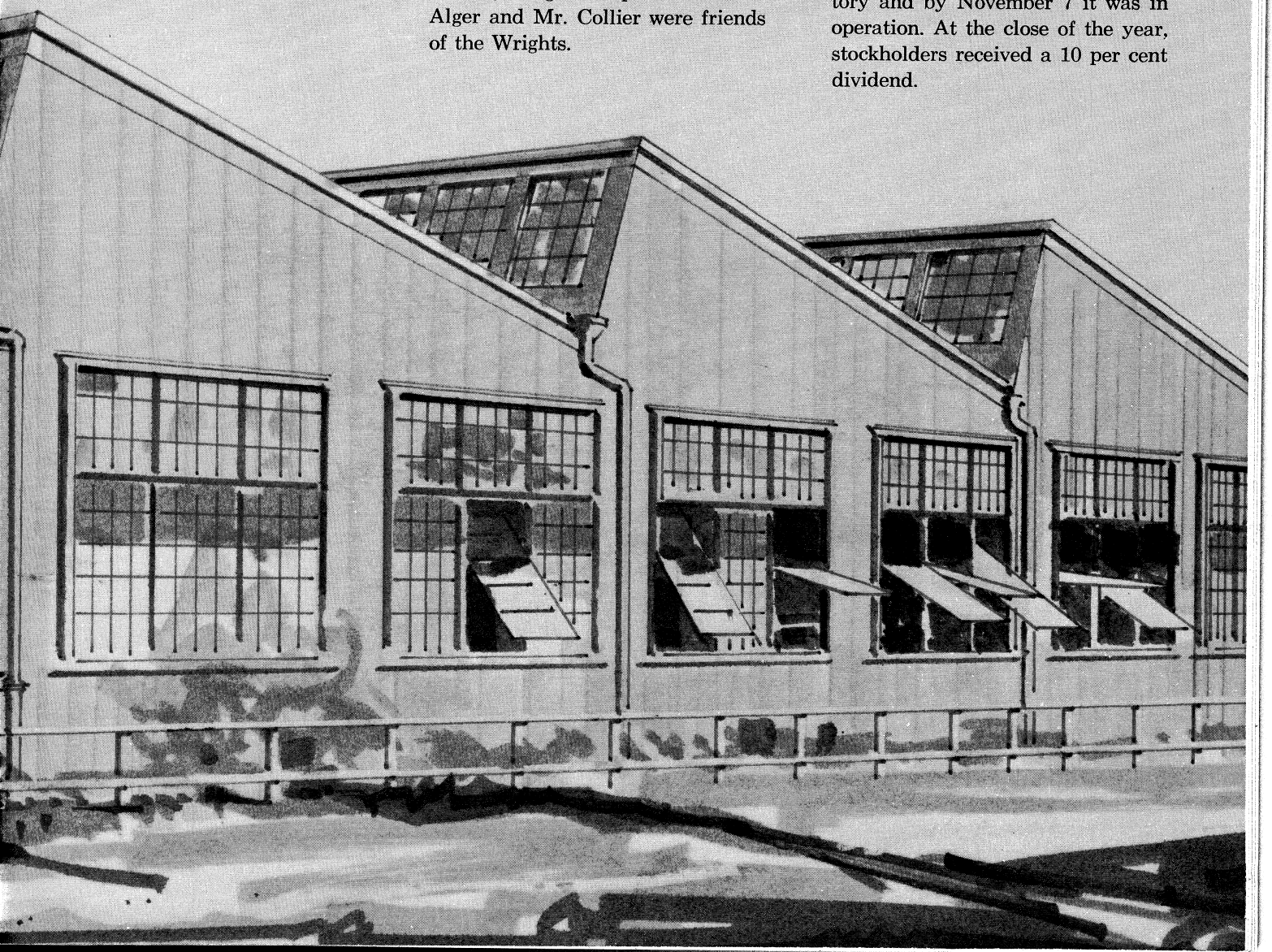
Motors In Bicycle Shop

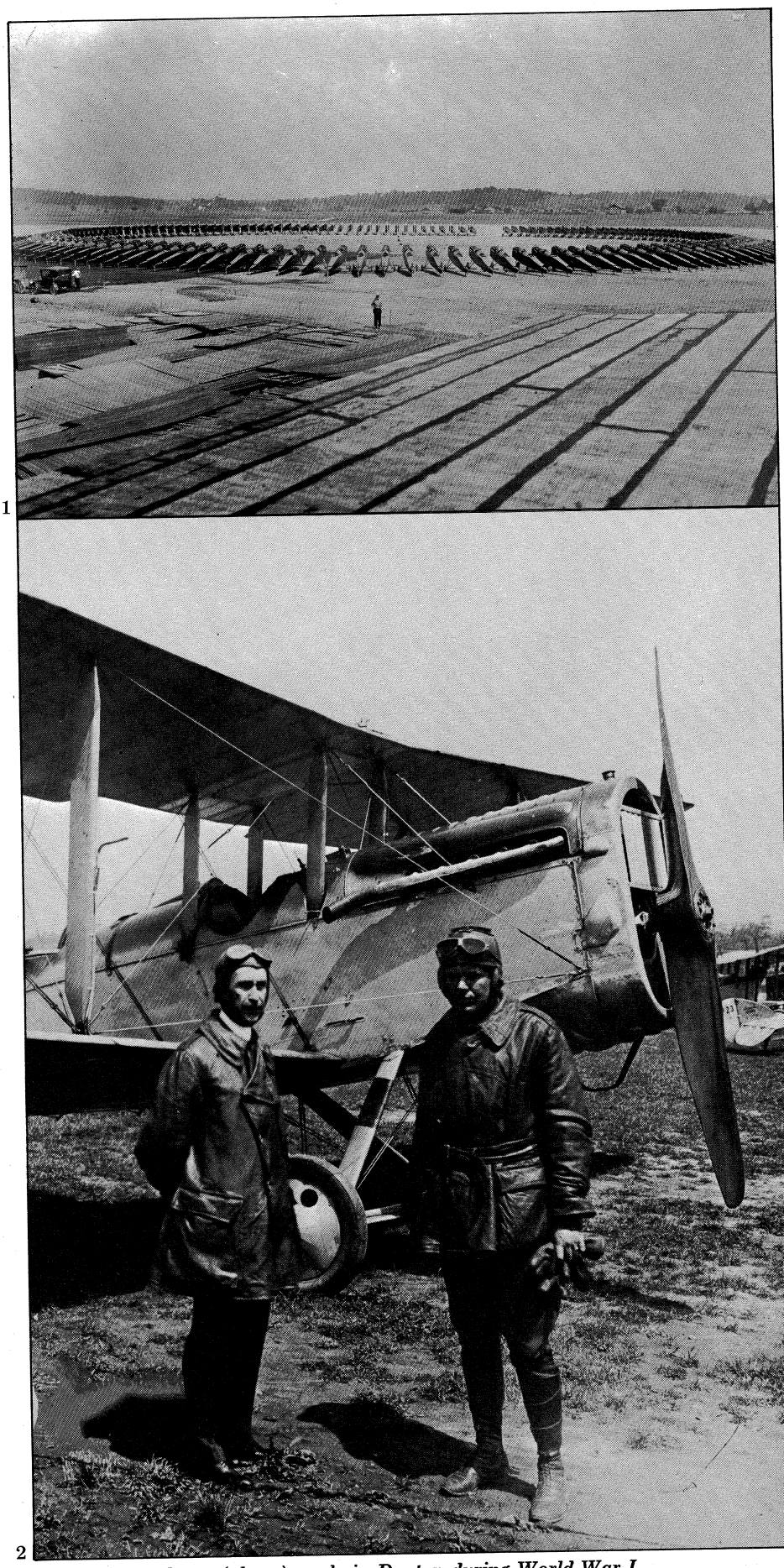
Thus, The Wright Airplane Company's first factory was a wing of the old Speedwell Motor Car Company plant that was later destined to become a part of the Delco-Moraine division of General Motors in Dayton.

The factory was equipped and in operation the first week of February, 1910. The motors were still being made by Charley Taylor, an early employee of the Wrights, in the Wrights' bicycle shop on West Third Street.

Three months after the factory began operations, the first airplane to roll from a Dayton factory was on the field ready for flight.

During the summer of 1910, the Wrights selected a site on West Third Street for a permanent factory and by November 7 it was in operation. At the close of the year, stockholders received a 10 per cent dividend.





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1. Lineup of planes (above) made in Dayton during World War I.

2. Orville Wright (left) with test pilot Howard Rinehart at South Field.

The Wright Airplane Company had three operating divisions—government, civilian and flying. The flying field was on the Huffman farm at Simms Station, the scene of the Wrights' early flights in their second plane—the 1905 Wright Flyer, which now is in Dayton's Carillon Park. (The Wrights also operated a flying school at Montgomery, Alabama.)

In 1911, the Wright Model B was introduced. It was powered by a 35-horsepower four-cylinder engine. General Benjamin D. Foulois called it "a beautiful little airplane." He flew it at San Antonio, Texas, where he was learning to fly by correspondence with the Wrights.

Robert J. Collier bought the first airplane produced by the new company. The price was $5,000.

One of the early planes was purchased by Calbraith Perry Rodgers, one of the nation's first pilots, who came to Dayton to accept delivery. As an advertising stunt, Mr. Rodgers was to fly from Sheepshead Bay, Long Island to Long Beach, Calif. He was sponsored by the makers of "Vin Fiz" a soft drink.

Made Repairs At Night

Mr. Rodgers offered Charley Taylor $10 a day and expenses as machinist for the project. Mr. Taylor traveled on a special train that accompanied the flight, and took care of the plane every night, making needed repairs.

Overall, the trip took 47 days.

Thus for a short period the Wrights were manufacturers of airplanes, but there's no evidence they were particularly happy about that accomplishment. In 1915 they sold their interest in the business.

The flying school apparently meant more to the Wrights than the production of airplanes. Orville and his assistants trained 116 young men and three young women during this period. Among them were H. H. (Hap) Arnold, who headed the Air Force during World War II and T. D. Milling, who later became Air Corps chief of staff in World War I. A complete list of names of those

taught to fly is on a plaque at the Wright Memorial overlooking Wright-Patterson Air Force Base.

When the United States entered World War I in April, 1917, the U.S. had no aircraft industry to speak of, and the Army Signal Corps had only a few obsolete planes and no pilots with combat experience.

A Plane-Hunt

U.S. military leaders did not know the kinds of airplanes needed. Thus the War Department sent the Bolling Commission to Europe on a plane-hunt. The Commission recommended the British DeHaviland-4 as the best and easiest to build. The new Aircraft Production Board accepted the idea and asked the British to send a DeHaviland-4 with drawings to match.

Meantime, the military arm decided to develop a new all-American engine by automotive engineers J. G. Vincent of the Packard Motor Car Company and E. J. Hall of the Hall-Scott Motor Company.

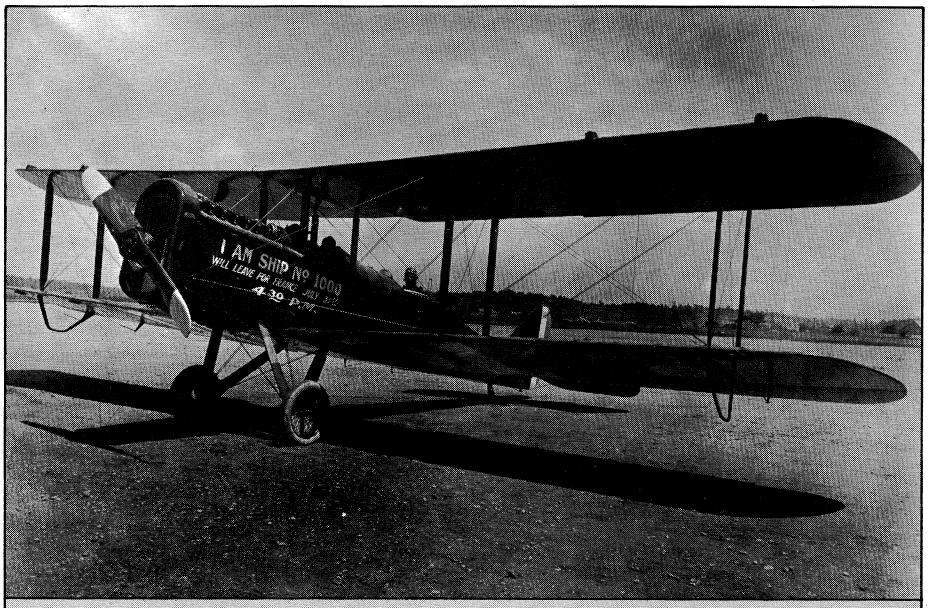
NCR's Col. Deeds, who had been a member of the Aircraft Production Board, and now was Chief of Signal Corps' Equipment Division, invited the two engineers to his suite in Washington's Willard Hotel and spurred them in just five days to design an engine that could produce 400 horsepower, and that could be manufactured in huge quantities by machine process.

The engineers met Col. Deeds' challenge for the engine that Rear Admiral David W. Taylor named the "Liberty."

Gov. Cox Suggested Deeds

It was one thing to design an engine, but quite something else to find someone to produce it. Secretary of War Newton D. Baker made two trips to Dayton, and finally after he conferred with Ohio Gov. James M. Cox, a group was found to tackle the project.

Gov. Cox, also a Daytonian and a newspaper publisher, suggested that Col. Deeds try his hand at forming a company. Col. Deeds enlisted Harold Talbott, Harold Talbott Jr.,



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3. The 1,000th DH-4 produced in Dayton is ready for shipment to France.

4. Early Wright plane landing at Simms Station (near WPAFB).

Charles Kettering and Orville Wright. They formed the Dayton-Wright Airplane Company.

Col. Deeds had no part in ownership or management because of his position in the government.

While the new company had to start from scratch, it had one big advantage—lease of a plant nearing completion in Moraine City south of Dayton. (This now is part of the Frigidaire division of General Motors.)

The plant at that time belonged to the Domestic Engineering Company (not to be confused with Delco), an organization formed by Col. Deeds and Mr. Kettering before the war to manufacture the Delco farm lighting system. Col. Deeds also placed at the disposal of Dayton-Wright his South Field, a part of his estate close to the new plant. (South Field was a part of the area now occupied by NCR's Moraine Farm in Kettering which is Col. Deed's former home and is used now by NCR for marketing division sales programs. The area actually covered acreage running west of Moraine Farm to near the site of General Motors' Frigidaire Division plant.)

South Field became the experimental center for Dayton-Wright. There, under the direction of Daytonian Jim Jacobs, who learned his aeronautics at the original Wright Airplane Company, the new company built five hangars.

Going from a "Jenny" to a DH-4 was like a passenger car driver in the Indianapolis 500

The DH-4, a British design, was only U. S. produced plane used in combat in WW I.

Key Role For NCR

Before the government settled its design problem, Dayton-Wright workmen built a training plane which Harold Talbott called the "FS" or "First Shot." Later they built the Curtiss JN-1, the "Jenny."

Dayton-Wright produced 400 of the "Jennies" before it began production of the DH-4s.

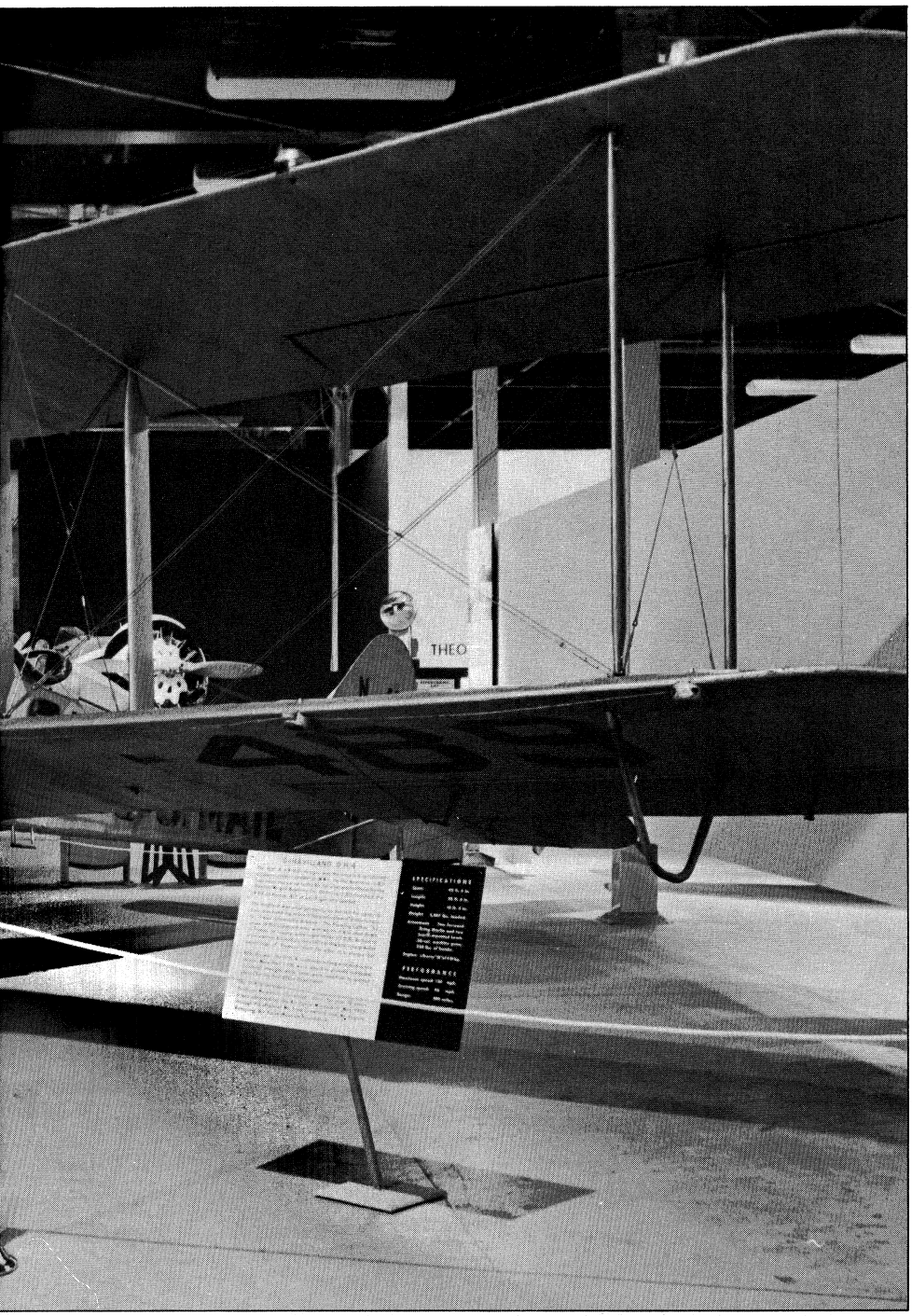
The late Carl Beust was head of NCR's Patent Department during the life of the Dayton-Wright Company. Accordingly, he had a lot to do with the making of metal fittings for the "Jennies" and the DH-4s at Dayton-Wright.

"NCR made every metal fitting on those planes," Mr. Beust said. "In addition, it made ailerons, rudders and elevators for the 'Jennies.'"

Mr. Beust recalled that NCR needed aluminum to make 200 airspeed indicators, but couldn't get it raw. Undaunted, NCR bought aluminum pie plates and, on a roller specially designed by NCR for the job, rolled the material to the thickness specified for hands on the indicator dials.

"The military wanted the instruments right away," Mr. Beust noted. "We scoured the country to find a watchmaker who could make them. Found him in Hartford, Connecticut, working in his home."

On the whole, the airplane that rolled from the Dayton-Wright assembly lines (40 a day at the time of the Armistice) was a good one for its day.



Planes Reached France

The first DH-4s made in Dayton reached France in May, 1918, a year after the U.S. entered the war. It was later said no American-built planes reached the battlefronts. However, it was established that 3,431 of the planes were delivered to the Air Service, most of them by Dayton-Wright. Of these, 1,213 reached the A.E.F. in France, 417 of which got into combat.

Many aircraft experts, including General James H. Doolittle, have called the DH-4 a good plane. However, some young pilots did have difficulties. Especially when they went from the "Jenny" which had an engine that generated only 90 horsepower to the DH-4 which had 400 horsepower.

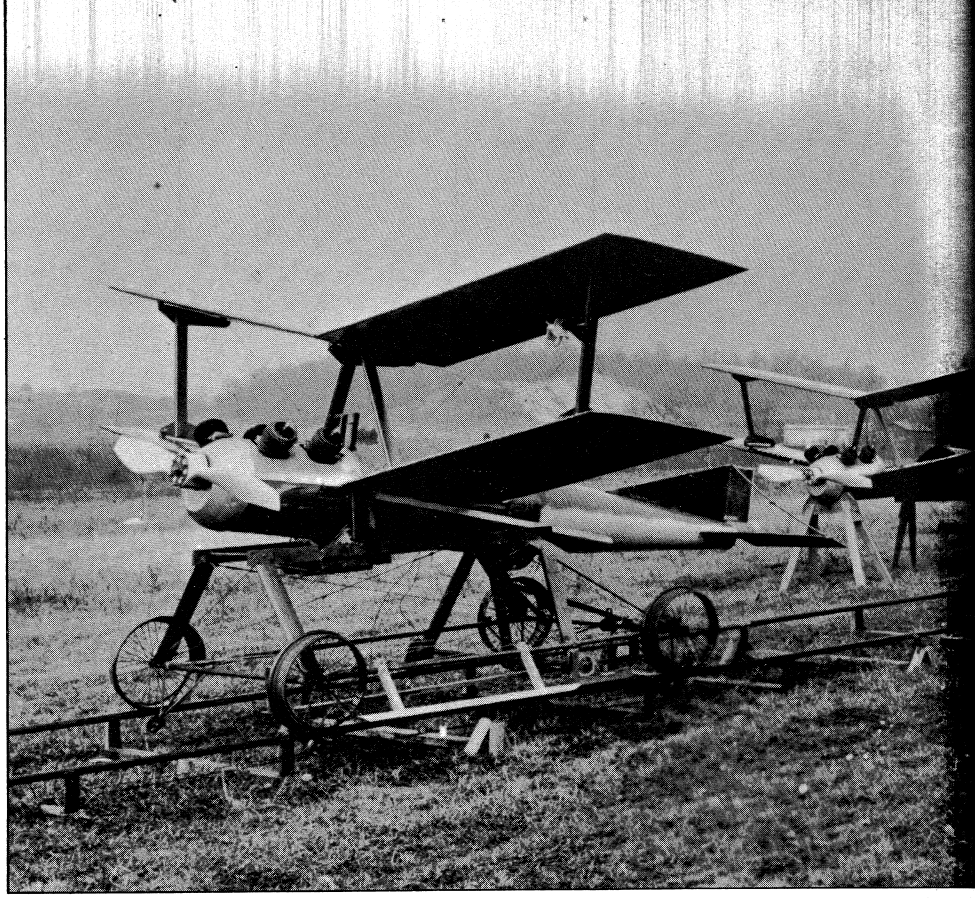
William (Bill) Conover, top-flight aircraft mechanic, said going from a "Jenny" to a DH-4 was like a passenger car driver entering the Indianapolis 500.

Famous test pilot Howard Rinehart, who tested planes for Dayton-Wright, liked the DH-4. He often flew "Boss" Kettering around the country in it, occasionally setting speed records without really trying.

(Editor's note: Some of the material here was taken from an unpublished manuscript, "The Frontier of Aviation", which was written by the late William L. Sanders, veteran Dayton newspaper man, at the suggestion of the late Eugene W. Kettering and the Aviation Hall of Fame.)

The Bug

The Germans battered England with their buzz bombs . . . Only a handful of persons knew that this was not really a new weapon.



THE "BUG" STORY is fascinating. It's the story of the world's first pilotless aircraft, buzz bomb, guided missile—call it what you will.

But, the "Bug" was the first. It was developed by the famous inventor-engineer Charles F. Kettering at the request of the Army Signal Corps in 1917.

Almost thirty years later, in 1944, the Germans battered England with their V-1 rockets or buzz bombs. Only a handful of persons in the U.S. knew that this really was not a new type of weapon. The "Bug" had been built in Dayton and readied for use but the Armistice in 1918 shelved it.

At South Field

Under Mr. Kettering's direction, experimental and testing work on the "Bug" was done at South Field, west of NCR's Moraine Farm.

That summer in 1917 Col. Deeds, William C. Chryst, Thomas Midgley and John Sheats along with Orville Wright, famous Indianapolis 500 racer Ralph DePalma, and a host of others perfected the "Bug."

In his book, "Global Mission," General H. H. (Hap) Arnold said:

"It was a complete little airplane built of papier-mache and reinforced with wooden members, its smooth cardboard wing surfaces spreading less than 12 feet.

Ford Built Engine

"Its fuselage held 300 pounds of explosives and it weighed, unloaded, 300 pounds itself. It took off from a small four-wheeled carriage which rolled down a portable track, its own little two-cycle 40 h.p. engine, built by Henry Ford, meeting the requirements for both pressure and vacuum necessary to operate the automatic controls.

"The actuating force for the controls was secured from bellows removed from player pianos. They rotated cranks, which in turn operated the elevators of the rudder. The direction of the flight was insured by a small gyro, elevation from a small supersensitive aneroid barometer, so sensitive that moving it from the top of a desk to the floor operated the controls.

"This kept the 'Bug' at its proper altitude.

"At first we relied only on the dihedral of the wings for lateral stability, but later, more positive directional controls had to be installed with orthodox ailerons.

"Including the $50 gasoline engine built by Henry Ford, the entire device cost about $400."

General Arnold said that to launch the "Bug," tracks were pointed toward the objective. The distance to the target, and wind direction and intensity, were figured out as accurately as possible.

"Like A Jack Rabbit's Ears"

The number of revolutions of the engine required to take the "Bug" to the target was then figured, and a cam set. Then, when the engine had turned exactly that proper number of revolutions, the cam fell into position, the two bolts holding on the wings folded up, "like a jack rabbit's ears," and the "Bug" plunged to earth as a bomb.

First tests of the "Bug" were highly successful and it was decided to

give a demonstration to top Washington brass. In order to assure that everything went right, it also was decided to put only a small amount of gasoline in the tank—only enough to allow the "Bug" to leave the track and make a straightaway flight of two or three hundred yards at most.

General Arnold said, "Unfortunately, not even Kettering realized how little gasoline the 'Bug' needed to operate. After a balky start before the distinguished assemblage, it took off abruptly, but instead of maintaining horizontal flight, it started to climb. At about 600 to 800 feet, as if possessed by the devil, it turned over, made Immelmann turns, and seeming to spot the group of brass hats below dived on them, scattering them in all directions. This was repeated several times before the 'Bug' finally crashed without casualties."

A Second Show

A second show was set up after Mr. Kettering had put ailerons with proper controls on the "Bug."

This time it was planned for it to fly at 50 miles per hour and the dignitaries were loaded into automobiles in order to give chase and be present when it crashed.

Again it got away and instead of flying straight, it made a circle around the city of Dayton. The real fear was that word might be leaked to the enemy.

Thus chase was made and finally it was found south of Xenia near New Burlington.

General Arnold concluded, "In the vicinity where we thought we had seen it come down, we came upon some excited farmers. 'Did you see an airplane crash around here?' we asked. One farmer said, 'Right over there! But strange thing, there's no trace of the pilot?'

"Colonel B. J. Arnold, the Army officer in charge of the project, remembered quickly we had a flying officer in a leather coat and goggles in the car.

"Here's The Pilot"

" 'Here's the pilot,' he said. 'He jumped out in his parachute back a piece. Let's go pick up that wreck.'

"Our secret was secure. The awed farmers didn't know that the U.S. Air Corps had no parachutes yet."

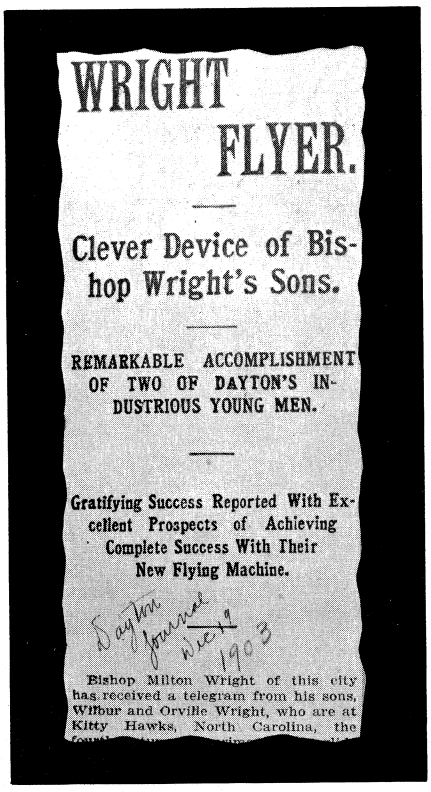
At the start of World War II, General Arnold relates that serious consideration was given to re-activating an improved "Bug." At a meeting that included General Arnold, Mr. Kettering and William Knudsen, it was decided that key targets in Germany could not be reached by even an improved "Bug" from England.

Fifty "Bugs" Produced

A total of fifty "Bugs" were produced by the end of World War I. The units were sent to Arcadia Field, Florida, where they were fired with varying success by the Army.

Overall the government had ordered 20,000 of them. Students at the Massachusetts Institute of Technology were trained to launch them.

Many persons, even close relatives of those who worked on the "Bug" project were unaware of it, until a replica was installed in the Air Force Museum at Wright-Patterson Air Force Base years later.



WRIGHT FLYER.

Clever Device of Bishop Wright's Sons.

REMARKABLE ACCOMPLISHMENT OF TWO OF DAYTON'S INDUSTRIOUS YOUNG MEN.

Gratifying Success Reported With Excellent Prospects of Achieving Complete Success With Their New Flying Machine.

Dayton Journal Dec 9 1903

Bishop Milton Wright of this city has received a telegram from his sons, Wilbur and Orville Wright, who are at Kitty Hawks, North Carolina, the

Here's how it was really reported

by Roz Young
Dayton Journal Herald Columnist

EVER SINCE 1903 Dayton newspapers have been twitted, even ridiculed, because the first flight of the Wright brothers received such sparse treatment in their pages.

A recent advertisement of a new book, "Leland Hazard on Transportation," published by Carnegie-Mellon University Transportation Research Institute, says, for example: "He touches on the Dayton newspaper's announcement that the Wright brothers would be home for Christmas without mentioning their flights..."

This is simply not true. Page one of the Dayton Daily News, Dec. 19, 1903, has the story referred to:

THE WRIGHT BOYS ARE COMING HOME

NORFOLK, Va., Dec. 19—Orville and Wilbur Wright, inventors of the "Wright Flyer," which made several successful flights near here Thursday, left today for their home in Dayton, O., to spend Christmas with their parents.

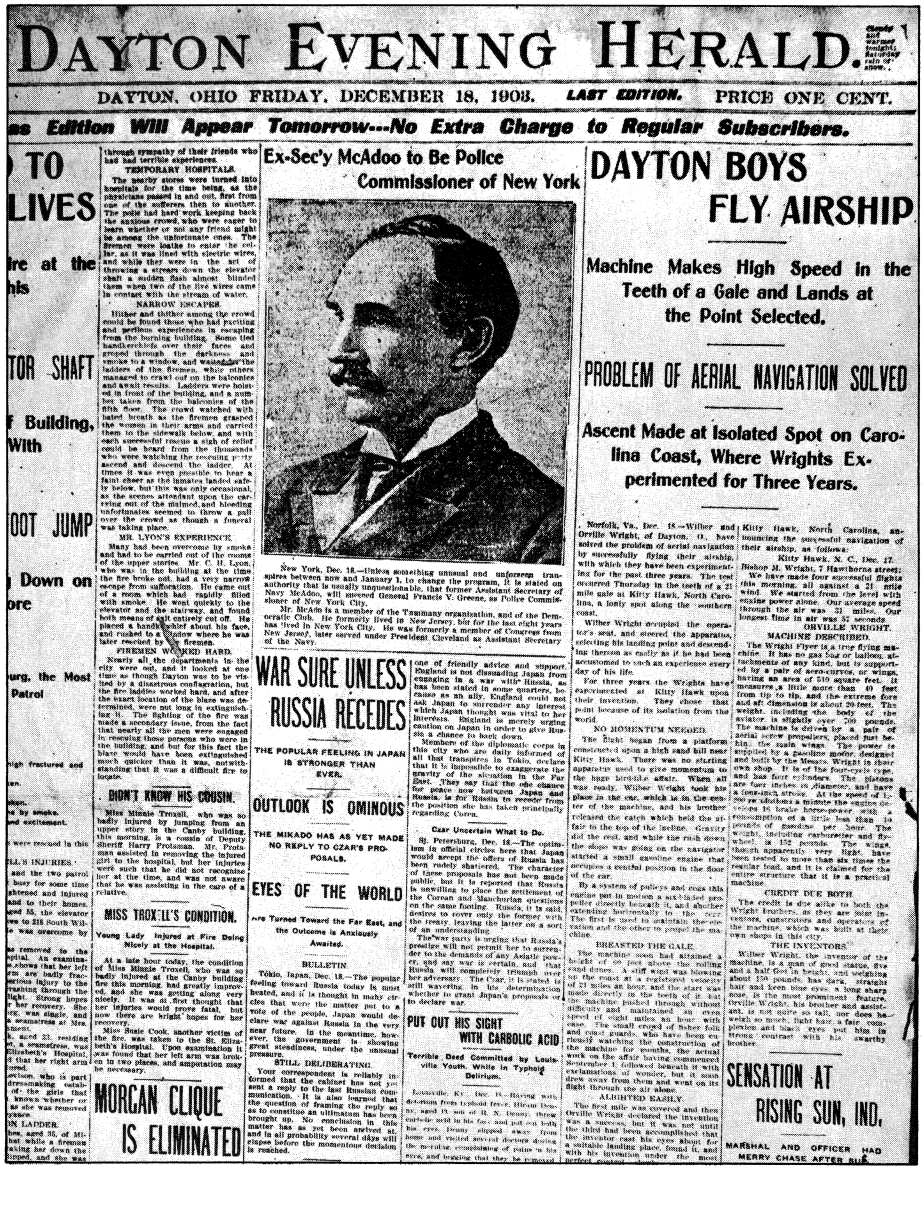
The Journal, however, bears the burden of most of the criticism because the telegraph editor did have the first opportunity to get the story and tossed it aside. But there is more to the tale than that. The Herald carried an extensive story of the flight on Dec. 18 and, on the morning of the 19th. The Journal carried the very first accurate story. But nobody who writes about the history of aviation tells about that.

What really did happen?

The Wrights made four flights on Dec. 17, the last one at noon. The two then prepared their lunch, ate it and washed the dishes. About two o'clock they walked over to the Kitty Hawk weather station to send a telegram to their father. It was about three when Orville wrote out the telegram and handed it to the operator.

The Wrights Said No

When he got Newport on the wire,



DAYTON EVENING HERALD.

DAYTON, OHIO FRIDAY, DECEMBER 18, 1903. LAST EDITION. PRICE ONE CENT.

as Edition Will Appear Tomorrow---No Extra Charge to Regular Subscribers.

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LL'S INJURIES:

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as removed to the spital. An examina- shows that her left rs are badly frac- ctions due to the rtaining through the ight. Strong hopes r her recovery. She ry, was single, and a seamstress at Mrs. rmers.

k, aged 23, residing th, a seamstress, was Elizabeth's Hospital, d that her right arm ured.

ection, who is part dressmaking estab- of the girls that knows whether or as she was removed ospital.

ON LADDER.

ber, aged 35, of Mi- hat while a fireman taking her down the pped, and she was

through sympathy of their friends who had had similar experiences.

TEMPORARY HOSPITALS.

The nearby stores were turned into hospitals for the time being, as the physicians passed in and out, first from one of the sufferers then to another. The police had hard work keeping back the anxious crowd, who were eager to learn whether or not any friend might be among the unfortunate ones. The firemen were unable to enter the cellar, as it was filled with electric wires, and while they were in the act of throwing a stream down the elevator shaft a sudden flash almost blinded them when two of the live wires came in contact with the stream of water.

NARROW ESCAPES.

Hither and thither among the crowd could be found those who had exciting and perilous experiences in escaping from the burning building. Some tied handkerchiefs over their faces and groped through the darkness and smoke to a window, and waved for the ladders of the firemen, while others managed to crawl out on the balconies and await rescue. Ladders were holstered in front of the building, and a number taken from the balconies of the fifth floor. The crowd watched with baited breath as the firemen grasped the women in their arms and carried them to the sidewalk below, and with each successful rescue a sigh of relief could be heard from the thousands who were watching the rescuing party ascend and descend the ladder. At times it was even possible to hear a faint cheer as the imates landed safely below, but this was only occasional, as the scenes attendant upon the carrying out of the maimed and bleeding unfortunates seemed to throw a pall over the crowd as though a funeral was taking place.

MR. LYONS' EXPERIENCE.

Many had been overcome by smoke and had to be carried out of the rooms of the upper stories. Mr. T. H. Lyon, who was in the building at the time the fire broke out, had a very narrow escape from suffocation. He came out of a room which had rapidly filled with smoke. He went quickly to the elevator and the stairway, and found both means of exit entirely cut off. He placed a handkerchief about his face, and then rushed to a window where he was later rescued by firemen.

FIREMEN WORKED HARD.

Nearly all the downtown hotels in the city were out, and it looked at one time as though Dayton was to be visited by a disastrous conflagration, but the fire fighters worked hard, and after the exact location of the blaze was determined, were not long in extinguishing it. The fighting of the fire was made a secondary issue, from the fact that nearly all the men were engaged in rescuing those persons who were in the building, and but for this fact the blaze would have been extinguished much quicker than it was, notwithstanding that it was a difficult fire to locate.

DIDN'T KNOW HIS COUSIN.

Miss Minnie Troxell, who was so badly injured by jumping from an upper story in the Cauby building, this morning, is a cousin of Deputy Sheriff Harry Troxell. Mr. Troxell was assisted in removing the injured girl to the hospital, but her injuries were such that he did not recognize her at the time, and was not aware that he was assisting in the care of a relative.

MISS TROXELL'S CONDITION.

Young Lady Injured at Fire Doing Nicely at the Hospital.

At a late hour today, the condition of Miss Minnie Troxell, who was so badly injured at the Canby building fire this morning had greatly improved, and she was getting along very nicely. It was at first thought that her injuries would prove fatal, but now there are bright hopes for her recovery.

Miss Susie Cook, another victim of the fire, was taken to the St. Elizabeth's Hospital. Upon examination it was found that her left arm was broken in two places, and amputation may be necessary.

MORGAN CLIQUE IS ELIMINATED

Ex-Sec'y McAdoo to Be Police Commissioner of New York

New York, Dec. 18.—Unless something unusual and unforeseen transpires between now and January 1, to change the program, it is stated on authority that is usually unquestionable, that former Assistant Secretary of the Navy McAdoo, will succeed General Francis V. Greene, as Police Commissioner of New York City.

Mr. McAdo is a member of the Tammany organization, and of the Democratic Club. He formerly lived in New Jersey, but for the last eight years has lived in New York City. He was formerly a member of Congress from the state of New Jersey, later served under President Cleveland as Assistant Secretary of the Navy.

WAR SURE UNLESS RUSSIA RECEDES

THE POPULAR FEELING IN JAPAN IS STRONGER THAN EVER.

OUTLOOK IS OMINOUS

THE MIKADO HAS AS YET MADE NO REPLY TO CZAR'S PROPOSALS.

EYES OF THE WORLD

Are Turned Toward the Far East, and the Outcome is Anxiously Awaited.

BULLETIN

Tokio, Japan, Dec. 18.—The popular feeling toward Russia today is most heated, and it is thought in many circles that were the matter put to a vote of the people, Japan would declare war against Russia in the very near future. In the meantime, however, the government is showing great steadiness, under the unusual pressure.

STILL DELIBERATING.

Your correspondent is reliably informed that the cabinet has not yet sent a reply to the last Russian communication. It is also learned that the question of framing the reply so as to constitue an ultimatum has been brought up. No conclusion in this matter has as yet been arrived at, and in all probability several days will elapse before the momentous decision is reached.

one of friendly advice and support. England is not dissuading Japan from engaging in a war with Russia, as has been stated in some quarters, because as an ally, England could not ask Japan to surrender any interest which Japan thought was vital to her interests. England is merely urging caution on Japan in order to give Russia a chance to back down.

Members of the diplomatic corps in this city who are daily informed of all that transpires in Tokio, declare that it is impossible to exaggerate the gravity of the situation in the Far East. They say that the one chance for peace now between Japan and Russia, is for Russia to reverse from the position she has taken primitually regarding Corea.

Czar Uncertain What to Do.

St. Petersburg, Dec. 18.—The optimism in official circles here that Japan would accept the offers of Russia has been rudely shattered. The character of the proposals has not been made public, but it is reported that Russia is unwilling to place the settlement of the Corean and Manchurian questions on the same footing. Russia, it is said, desires to cover only the former with the treaty, leaving the latter on a sort of an understanding.

The war party is urging that Russia's position will not permit her to surrender to the demands of any power, or she may say war is certain, and that Russia will commence hostilities on her adversary. The Czar is stated to still be wavering in his determination whether to grant Japan's proposals or to declare war.

PUT OUT HIS SIGHT WITH CARBOLIC ACID

Terrible Deed Committed by Louisville Youth, While in Typhoid Delirium.

Louisville, Ky., Dec. 18.—Having suffered from typhoid fever, Elliott Dupuy, aged 18, son of H. N. Dupuy, threw carbolic acid in his face and put out both his eyes. Dupuy slipped away from home and visited several doctors during the morning, complaining of pains in his eyes, and hoping that they be removed.

DAYTON BOYS FLY AIRSHIP

Machine Makes High Speed in the Teeth of a Gale and Lands at the Point Selected.

PROBLEM OF AERIAL NAVIGATION SOLVED

Ascent Made at Isolated Spot on Carolina Coast, Where Wrights Experimented for Three Years.

Norfolk, Va., Dec. 18.—Wilber and Orville Wright, of Dayton, O., have solved the problem of aerial navigation by successfully flying their airship, with which they have been experimenting for the past three years. The test occurred Thursday in the teeth of a 21 mile gale at Kitty Hawk, North Carolina, a lonly spot along the southern coast.

Wilber Wright occupied the operator's seat, and steered the apparatus, selecting his landing point and descending thereon as easily as if he had been accustomed to such an experience every day of his life.

For three years the Wrights have experimented at Kitty Hawk upon their invention. They chose that point because of its isolation from the world.

NO MOMENTUM NEEDED.

The flight began from a platform constructed upon a high sand hill near Kitty Hawk. There was no starting apparatus used to give momentum to the huge birdlike affair. When all was ready, Wilber Wright took his place in the car, which is in the center of the machine, and his brother released the catch which held the machine fair to the top of the incline. Gravity did the rest, and while the rush down the slope was going on the navigator started a small gasoline engine that occupies a central position in the floor of the car.

A system of pulleys and cogs this engine put in motion a set-bladed propeller directly beneath it, and whether extending horizontally to the rear. The first is used to maintain the motion of the machine through the air, while the latter is to propel the machine.

BREASTED THE GALE.

The machine soon had attained a height of 60 feet above the rolling sand hills, and with its engine driving it up the coast at a registered velocity of 27 miles per hour, and a start was made directly in the teeth of the gale. The machine pushed through without difficulty and maintained an even speed of eight miles an hour with ease. Then a small puff of wind, fully nine coast guards, who have been engaged in watching the construction of the machine for months, the actual test of the affair having commenced September 1, followed beneath it with exclamations of wonder, but it soon drew away from them and went on its flight through the air alone.

ALIGHTED EASILY.

The first mile was covered and then Orville Wright declared the invention was a success, but it was not until the third had been accomplished that the inventor cast his eyes about for a suitable landing place, found it, and with his invention under the most perfect control, slowly neared the earth and let his machine alight as easily and gracefully as a bird.

Kitty Hawk, North Carolina, announcing the successful navigation of their airship, as follows:

Kitty Hawk, N. C., Dec. 17.

Bishop M. Wright, 7 Hawthorne street:

We have made four successful flights this morning, all against a 21 mile wind. We started from the level with engine power alone. Our average speed through the air was 31 miles. Our longest time in air was 57 seconds.

ORVILLE WRIGHT.

MACHINE DESCRIBED.

The Wright Flyer is a true flying machine. It has no gas bag or ballon, attachments of any kind, but is supported by a pair of aero-curves, or wings, having an area of 510 square feet. It measures a little more than 40 feet from tip to tip, and the extreme fore and aft dimension is about 20 feet. The weight, including the body of the aviator, is slightly over 700 pounds. The machine is driven by a pair of aerial screw propellers, placed just behind the main wings. The power is supplied by a gasoline motor, designed and built by the Messrs. Wright in their own shop. It is of the four-cycle type, and has four cylinders. The pistons are four inches in diameter, and have a four-inch stroke. At the speed of 1,090 revolutions a minute the motor develops 16 brake horse-power, with a consumption of a little less than 10 pounds of gasoline per hour. The Wright, instead of sprockets and flywheels, has 152 pounds. The wings, though apparently very light, have been proved to more than six times the regular load, and it is claimed for the entire structure that it is a practical machine.

CREDIT DUE BOTH.

The credit is due alike to both the Wright brothers, as they are inventors, constructors and operators of the machine which was built at their own shops in this city.

"THE INVENTORS."

Wilber Wright, the inventor of the machine, is a man of good stature, five feet and half-foot in height, and weighing about 150 pounds, has dark hair and hazel blue eyes, a long sharp nose, is the most prominent feature. Orville Wright, his brother and assistant, is not quite so tall, nor does he weigh so much, light hair, a fair complexion and blue eyes put him in strong contrast with his swarthy brother.

SENSATION AT RISING SUN, IND.

MARSHAL AND OFFICER HAD MERRY CHASE AFTER BUR

that operator asked if he could give the news to H. P. Moore, a reporter friend of his on The Norfolk Virginian-Pilot. The Wrights said no; they wanted the first news to come from Dayton.

But the Norfolk operator tipped Moore off anyhow. He tried vainly to get in touch with the Wrights or somebody who had seen the flight He wrote a grossly inaccurate story (Orville Wright said later it was 99 per cent wrong) and offered to sell it to 21 newspapers over the country, one of which was the Dayton Journal.

Frank Tunison, the telegraph editor, turned it down. Only five papers bought the story and of those five only three printed it the next morning.

Orville's telegram reached Dayton at 5:25 in the evening of Dec. 17. Bishop Wright asked Lorin Wright, another brother, to prepare a statement for the Associated Press.

"Fifty-seven Seconds, hey?"

Lorin went to The Journal and asked to speak to the AP man. It was Frank Tunison who, Fred Kelly says in his biography of the Wrights, yawned and said, "Fifty-seven seconds, hey? If it had been fifty-seven minutes then it might have been a news item."

The next morning three papers in the country, one in New York, one in Washington and the Cincinnati Enquirer, along with the Norfolk paper, carried the story of the flight. The Associated Press then sent out a 350-word digest of the story for its members.

In the afternoon the Dayton Evening Herald carried a large page one story of the flight, the facts gathered from the Associated Press release. It said, for instance, that the flight lasted three miles.

"The mile was covered and then Orville Wright declared that the invention was a success, but it was not until the third had been accomplished that the inventor cast his eyes about for a suitable landing, found it and with his invention under utmost control, slowly neared the earth and let his machine alight as easily and gracefully as a bird."

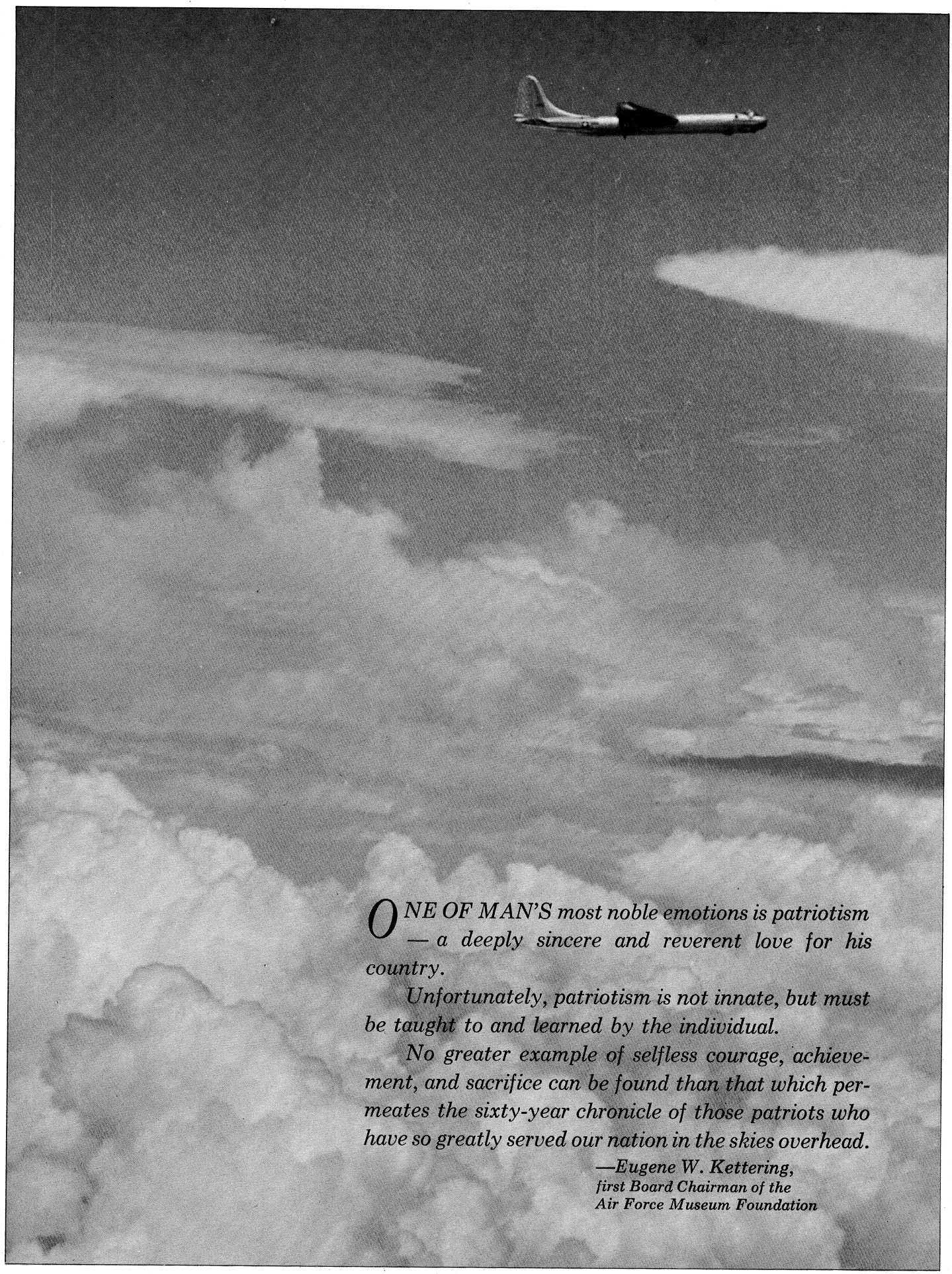
What happened in the city room when the editor of The Journal found what Frank Tunison had done we shall likely never know. Words doubtless were spoken, for the following morning The Journal carried a story not taken from the erroneous AP release, but that began:

"Bishop Milton Wright of this city has received a telegram from his sons, Wilbur and Orville Wright, who are at Kitty Hawk, North Carolina, the fourth autumn, experimenting in gliding through the air an aeroplane of their own make, and regulated by devices of their own invention."

The story quotes the telegram in full and continues to describe the plane in some detail.

That is what happened. The Journal could have had the first story but did not. The Herald carried a detailed story at its first opportunity; someone could have checked its accuracy but failed to. The News—you have read the story The News used on its front page.

The Journal, then, published the first accurate story of the flight two days after it happened. It isn't much to hold on to, but it's a shred and we'll cling to it to the very end.



ONE OF MAN'S most noble emotions is patriotism — a deeply sincere and reverent love for his country.

Unfortunately, patriotism is not innate, but must be taught to and learned by the individual.

No greater example of selfless courage, achievement, and sacrifice can be found than that which permeates the sixty-year chronicle of those patriots who have so greatly served our nation in the skies overhead.

—Eugene W. Kettering,
first Board Chairman of the
Air Force Museum Foundation